FEB 4 1944

JOURNAL
of the
Association of American Medical Colleges

Volume 19 **JANUARY, 1944** **Number 1**

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Published bimonthly, January, March, May, July, September and November, at 5 South Wabash Avenue, Chicago 3, Illinois, by the Association of American Medical Colleges. Subscription price $3.00 per year. Single copies, 75 cents.

Entered as second class matter January 17, 1930, at the Post Office at Chicago, Illinois, under the Act of March 3, 1879.

(Continuing the Bulletin of the Association of American Medical Colleges)

JOURNAL
OF THE
Association *of* American Medical Colleges

Volume 19 JANUARY, 1944 Number 1

The Association of American Medical Colleges and Some Postwar Medical Problems*

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Vanderbilt University School of Medicine
Nashville, Tennessee

During more than fifty years the accomplishments of the Association of American Medical Colleges in the advancement of medical education, particularly as related to the practice of medicine, have been of the first magnitude. We know that leaders of inspiring ability have consistently taken an active and progressive interest in the problems of this organization. The record of annual meetings shows that the Association has considered, from year to year, how the ideals and standards of medical education might be applied constructively to a great variety of specific problems: premedical training; selection of students; curricular arrangement and content; standardization of equipment; the character of undergraduate and postgraduate instruction, and the methods of teaching that may best be employed in training students. These and other activities, however, have not been widely publicized because they have been considered largely from the standpoint of their academic and professional significance to medical educators.

The "Proceedings" of early meetings of this Association were published in the *Bulletin of the American Academy of Medicine* and later were included in our JOURNAL, which was first issued in 1926. During the thirty-six years from 1890 to 1926, this Association had no means of publicizing its activities. Nevertheless, the proceedings of the annual meetings during these years, though not published, were permanently bound, and constitute valuable contributions to professional education as well as to the art and practice of medicine. A review of these volumes increases one's appreciation of the work carried on by this organization in attaining significant and far reaching results in the development and stabilization of high ideals and standards in schools of medicine. This interest has been accentuated because the annual meetings of the Association have afforded a channel for freedom of expression and official action by representatives of member medical colleges.

Here it may be well to point out that the headquarters office of this Association was not established until 1931. This action became an obvious necessity

* Presidential Address read at the Fifty-fourth Annual Meeting of the Association of American Medical Colleges, held in Cleveland, Ohio, October 25-27, 1943.

as responsibilities increased. The Association undertook, for example, to set up a medical student register and a college student register; to inquire into student accomplishments and make a study of applicants; to conduct an inspection of medical schools in the United States and Canada; and to publish the only journal devoted wholly to medical education. Other constructive activities might be recounted. In 1929, the medical aptitude test of premedical students was instituted as an experiment. In 1935, after careful study by a committee concerning the value of this test, it was adopted as a permanent activity, and it is now used as a factor in admission of students to most, if not all, medical schools.

This leads me to state that, beginning with the postwar period, there will undoubtedly be additional obligations and responsibilities for the central office staff. As a consequence, there will be urgent need for some increase in personnel and a more conveniently arranged and commodious office space. It is not my purpose to advocate an expensive outlay in the central administrative setup; but I am convinced that we should be sufficiently interested to envision our opportunities for attaining, through the coordinate influence and manpower of medical faculties, higher standards in medical education and the practice of medicine.

At this point I wish to give recognition to the long and useful career of our Executive Secretary, Doctor Fred C. Zapffe, who has served the Association of American Medical Colleges loyally and untiringly for forty years. This has been done, I am sure, with much personal sacrifice as well as with genuine satisfaction. Doctor Zapffe fortunately acted as Assistant to the Secretary three years before being chosen to assume the larger responsibility in 1903. Therefore, on assuming the duties of Executive Secretary, he was well informed about the work, objectives and spirit of this organization. It is my considered judgment that the Council, in conjunction with the Executive Secretary, should add to the staff an assistant or associate secretary and as soon as possible also some additional clerical and stenographic aid. This step should be taken to enable the full time staff to carry on more effectively the increased duties which will inevitably accrue during the postwar period.

The epoch making changes occuring in premedical and medical education and the multiplicity of serious and perplexing problems which will confront the profession in the practice of medicine during the postwar period afford cogent reasons for a restudy of the activities of this organization. Undoubtedly new types of work will be required, which will expand the scope and enhance the usefulness of the Association of American Medical Colleges. The only supply of physicians is from the medical schools, and the soundness of educational procedures in the art and science of medicine during the most confusing, turbulent and revolutionary period in our history will have a far reaching significance in determining the level of attainment in medical service and in research during the postwar period and the years to follow.

My observation and experience during recent years would suggest that there is need for better cooperation and coordination in the two fields covered by

the activities of the Association of American Medical Colleges and of the Council on Medical Education and Hospitals of the American Medical Association. For implementing this purpose, some two years ago, a liaison committee was appointed. This committee was instructed to hold regular meetings in which it would discuss and formulate procedures to strengthen the administrative and professional relationships of the two major medical accrediting agencies. The findings of this committee should be and doubtless will be a constructive influence.

The program which has been carried on under the leadership of Doctor Henry E. Meleney, chairman of the committee for creating more interest in teaching tropical medicine in medical schools, has exerted a tremendous influence and has laid the foundation for a broader development of this phase of instruction in a much more practical and vitalizing way. As much as $70,000 has been provided for this purpose by the John and Mary R. Markle Foundation during the current year. Without this timely and generous aid, a greatly neglected and exceedingly important subject could not have been so effectively emphasized as an essential part of the medical school curriculum. Not only is this a generally recognized need in training future physicians, but it is also an urgent necessity as a war and postwar measure. Physicians returning from overseas service will exert a favorable influence on the practice of tropical medicine in this country.

The Committee on the Teaching of Preventive Medicine and Public Health will continue its valuable work with Doctor Harry S. Mustard as Chairman. It will be remembered that this Committee was organized in 1939 at the request of the American Public Health Association "to cooperate in formulating a program for the education of undergraduate medical students in the preventive and public health aspects of medicine." Facts and opinions based on experience have been gathered and analyzed. Furthermore, this Committee maintains contact with and has the counsel of a corresponding group in the American Public Health Association. A preliminary report was made in 1941 and an interim report in 1942. From these studies there is assurance that this work will be done carefully. The findings already show that in many medical schools there is an unfortunate gap between the teaching of clinical and public health subjects; that there is also not infrequently a tendency to present to undergraduate medical students a type of instruction better suited to graduate students; and there seems no doubt that these subjects are generally begun too late in the medical curriculum. There is no disposition to work out any rigid formula or to impose any one pattern of departmental organization or program. This Committee, however, does not believe that it would be wise to make final recommendations at present. It recognizes that faculties are now under great pressure and that it would not be practicable for medical schools at the moment to reorganize and amplify this phase of teaching. The Committee accordingly feels that final recommendations at this time would probably gain scant attention. However, these will be offered for consideration and approval at the next meeting or some still later meeting of this body.

The published records of the American Medical Association show a list of 7,959 internships in 702 hospitals approved for 1943. The criteria used for this purpose are: size of hospital, the patient turnover, daily census, annual admissions, staff organization, the laboratory and outpatient service, autopsy rate, library facilities, radiology equipment, patient records, administrative direction, schedule of medical care, and probably other factors. As a matter of course, consideration has been given to the professional atmosphere and environmental conditions. These are all basic factual data in determining an educational program for interns, but experience shows that although these facilities may be reasonably satisfactory, too often they do not afford the teaching experience for the intern year required as an essential preparation of a physician.

In recognition of this need, this Association, in 1939, appointed a subcommittee of the Committee on Educational Policies to study the qualitative aspects of the internship experience. You doubtless recall a special resolution was adopted at our annual meeting in 1940 advocating that minimal educational standards be formulated for internships. As a result of reports of this subcommittee, of which Doctor J. A. Curran was Chairman, and the resolution referred to, as many as eight regional committees were appointed, composed of representatives of faculties of medical schools in the respective areas. Thus a tentative, but unpublished, list has been prepared, showing which hospitals use an improved educational program. This educational program becomes an underlying criterion for designating their relative standing; and this list will serve as a guide to deans for advising fourth-year students in selecting hospitals to which applications for internships may be made.

The "regional organization of hospitals" for the improvement of physical and educational facilities is in line with a definite trend for advancement, in general, of academic and professional institutions. This plan, in my opinion, would be a forward looking step in raising the educational level of intern and resident training which, I believe, can be greatly facilitated by more frequent personal contact and helpful direction of hospital staffs by regional members of medical faculties.

Medical students, as we know, because of better training, have become much more critical-minded as a whole. They are particularly critical about educational opportunities available for internships in different types of hospitals. We know the high ranking students apply to and are usually appointed in teaching hospitals. They have learned that these institutions not only provide a regular schedule of instruction for interns on a satisfactory educational level, but also afford superior facilities for training in specialized fields of medicine. In brief, they offer an effective transition from the internship to the residency.

During the prewar period, in common, I am sure, with other faculty members present, I have had conferences with members of professional staffs, especially of many private and municipal hospitals, earnestly inquiring what could be done by them to improve the educational opportunities for interns in their respective hospitals. This seemed clearly desirable to them not only to compete

in getting students to apply but also to attract the better types of students. Unfortunately, in such hospitals administrators are too often compelled to make a choice from students ranking in the lower third of the class when, although they may be deserving, we know these are the students whose educational and professional outlook needs to be made more secure. As a consequence, the ideals and standards gained in a medical school, instead of being maintained or improved, may often be actually lowered. Therefore, recent graduates are becoming well aware of the possible undesirable effects of an intern year not well selected and are anxious to avoid this outcome. This is an encouraging sign and one which will doubtless be a potent factor in improving the educational experience of internships generally in hospitals.

There is, therefore, unquestioned need to use the coordinate influence of medical school faculties in cooperation with the Council on Medical Education and Hospitals. Such cooperation is particularly desirable with professional staffs of hospitals in conjunction with the authorities of national hospital associations. Thus, combined efforts might be directed toward the improvement of the teaching programs for training during the intern year. I wish here to stress the contribution this Association can make by maintaining a continued and systematic effort to develop educational schedules and facilities of accredited hospitals in many of which these are now seriously deficient. Obviously, it is not unnatural for this problem to be overlooked by practitioners because of the impelling demands in private practice and in community service.

A postwar medical problem of the greatest importance is the imperative need for a well-defined plan to deal effectively with graduate medical education, particularly with reference to the training of residents. We are informed by the Council on Medical Education and Hospitals that 5,085 residencies and 711 fellowships in 646 hospitals have been approved in the United States inclusive of its territories and the District of Columbia. These data are based on the published list for 1943.

Winning the war is our primary responsibility, and this transcends all other considerations. It is clearly indicated, however, that we should plan to handle intelligently many perplexing problems which will certainly arise for solution during the postwar period. I am sure, in common with you, that one of the most frequent inquiries from medical students and recent medical graduates is: After the war is over, what opportunities and facilities will be afforded for training those who will return home, war-weary, from military service?

It is estimated that approximately 12,000 interns and residents have been called to active duty in the Armed Forces at present, and for each year the war continues from 5,500 to 6,000 recent medical graduates who are serving as members of house staffs will enlist for military service. Although, in general, these men will have had a varied and valuable experience in medical service, scores of them, on discharge from the Army and Navy, will wish to specialize and will seek appointments and training as residents for a period of from three to five years. It is pertinent to inquire what will be the best way to meet this

obligation. It is quite evident to me that a flexible procedure should be adopted and that a coordinated plan of fellowships and residencies would seem to promise the most satisfactory outcome for graduate training. Funds should be made available for use in medical schools to provide fellowships in the basic sciences for a year or more for graduate study and research, with provision, if advisable, for some regular teaching experience. This would enable those who have had only limited supervised hospital experience prior to enlistment in military service to continue in graduate study after returning, and until appointment to a residency could be obtained. Opportunity to work in one or more basic sciences would prove invaluable in broadening one's training base for specialization as well as for a higher level of professional service in general practice. This procedure could be used as a selective or "screening" method to determine and stabilize the objectives of potentially promising candidates who may wish to follow an academic career. This would also afford a means to meet all requirements for certification by specialty boards. This group of recent graduates with a keen incentive to go forward in their profession will possess great potentialities for a successful and inspiring career which, I think, would give great strength and purpose to this plan.

Another impending postwar problem of major significance will be the demand on return from military service for postgraduate instruction in medicine and its specialties as an orientation to civilian practice. It is estimated that approximately 36,000 civilian physicians at present are serving in the Armed Forces of our country and that an additional 4,000 to 5,000 will enlist for military service by the beginning of 1944. On their return home the demand for postgraduate or short "refresher" courses will be requested by scores of these physicians. Many of them will also seek relocations for practice. Then, too, the reabsorption of these physicians will constitute a formidable postwar problem of readjustment in civilian practice.

Ample funds should be made available to meet the needs for graduate and postgraduate instruction and doubtless adequate provision will be made to provide these opportunities and facilities. A survey of postgraduate teaching is being conducted at present by the Council on Medical Education and Hospitals, and other medical groups, with this in view.

Following the cessation of hostilities in this global war, the Association of American Medical Colleges, together with similar organizations, will face the obligation of careful planning and the adoption of procedures which can be utilized in the rehabilitation of the health and medical needs of our own people and those of our allies. Many urgent and difficult problems will require consideration by the medical profession. Among these will be the adjustments and readjustments involved in the changes which will inevitably accrue in premedical and undergraduate medical education as well as graduate and postgraduate instruction; the reabsorption of physicians returning from military service, many of whom will seek locations and relocations for civilian practice; the supply of practitioners and teachers for the building up of medical education and prac-

tice in this country and in countries of our allies; and the solution of many serious problems in the supply and distribution of adequate medical services. Because of these and other engaging problems I wish to suggest that this Association establish a cooperative, coordinated plan to mobilize, in the most effective way, the experience and facilities not only of this organization but also those of closely allied agencies such as the American College of Physicians, American Medical Association, American Public Health Association, and other professional as well as important civic groups. A program of this kind could serve to guide and coordinate postwar activities and use more fully the leadership of the Association of American Medical Colleges. I hope this will be done.

In conclusion, I desire to use this opportunity to stress the fact that physicians on the essential teaching lists of medical schools have rendered a fundamental and patriotic service in the training of physicians for use in military service and in civilian practice. These men are serving the nation as truly as if they were in uniform. The routine and strenuous tasks which they are called upon to perform day after day do not have the glamour or spirit of adventure which are afforded in military service, but we recognize they are, nevertheless, occupying key positions and should feel that their services are as important and essential as if they were on the battle front. They have labored thoughtfully and well to maintain a strong and unyielding home front.

Obviously, we of the Association are desirous of cooperating in every way with the far flung Armed Forces of our country. This nation will exert an important and powerful influence in rebuilding a new world. Winning the peace will be more prolonged and difficult than winning the war.

The Army Specialized Training Program*

MAJOR GENERAL GEORGE F. LULL, A. U. S., M. C.
Deputy Surgeon General, U. S. Army, Washington, D. C.

When Colonel Fitts and I accepted an invitation to come out here and appear before you, we thought that probably one of the best ways to conduct this paper was to say very little, except to answer questions, because I know that a great many of you have questions to ask.

Now, in a good military manner, Colonel Fitts and I divided up the work. Colonel Fitts took 90 per cent of it, and I took 10 per cent. (Laughter) So, I am to take the medical student from the time he enters the medical school—rather putting the cart before the horse—and Colonel Fitts will discuss the problems surrounding the selection and acceptance of the medical student and his premedical education.

Now, I know that there are a lot of things that are confusing, because we have decentralized this training to nine service commands, and it is very hard to get any uniformity when the decentralization is so complete.

After the medical student enters the medical school as a first year medical student, the thing we would like to impress on you is that he is not a student with an olive drab uniform on. He is a soldier who is being sent to you for training in medicine, and he remains with you only so long as his work is satisfactory and his conduct is satisfactory. If at any time he falls by the wayside, he will be returned to some other branch of the armed forces.

The government has assumed the responsibility of training this man, and we will train him only in the accredited medical schools.

The men are sent to you, members of the Association, to train. As long as the man is there, we would like to have him follow whatever course of instruction you have, or had previous to the institution of this program.

There is some confusion about what he should receive in the way of military instruction. That varies. I have talked to several of the deans and some of the students and I find it varies greatly.

It is the desire of the Surgeon General's Office to have him receive only a minimum amount of military instruction while he is in the medical school.

Now, in premedicine, he receives a much larger percentage of military instruction than he does in medical school.

We do not have enough medical officers to detail one full-time with each medical school. Some schools have full-time medical officers, and, of course, these officers can be of great help to the dean in deciding problems that arise with the student. In other schools we have branch immaterial officers. They, of course, can help out with administrative difficulties. But, as most of these men are not

* Presented at the Fifty-fourth Annual Meeting of the Association of American Medical Colleges, held in Cleveland, Ohio, October 25-27, 1943.

familiar with medical education, it is very hard for them to make decisions. When they have a large number of young assistants, the young assistants want to give the men a greater percentage of military instruction, probably, than the deans approve of. But this can all be ironed out in the service command headquarters. It should be ironed out.

If you think that the men are being taken away from their medical work too much, it should be brought up, in the service command headquarters, and I am sure that it will be. If it isn't ironed out in service command headquarters, Colonel Fitts can iron it out in the War Department, because he is a great "ironer-outer" as you all know. (Laughter)

Now, when the student graduates from medicine, he receives his M.D. degree; he will be given a commission in the Medical Corps and placed on the inactive list until he has completed his internship.

When he has completed his internship, he will be called to active duty in the Army.

There is a new method of retaining a certain number of these officers for residency. This is a new plan which has been recently put into effect by the Procurement and Assignment Service, and I believe will be discussed later with the Association.

We will keep these men on an inactive list until the internship is over, but, at the end of the internship, they will be called to active duty, except the few who are deferred, and they are still in the Army, and they will be called to active duty, and they will only be deferred while they are completing their training as interns and as residents. We can keep a pretty careful check on them now.

You know, we have had a lot of trouble with residents. I could cite innumerable instances of the trouble we have had with residents. For instance, I know of one man who gave up the practice of medicine two years ago to become a resident. He was a young fellow, and he is still a resident. He has been deferred by his local draft board. He was engaged in the practice of medicine. He owned a house and had an office, and sold it and became a resident, because he thought he could "beat the rap" that way.

I know of two cases from this state, brought to my attention the other day. There was a man here in Ohio who was neither in the Army nor the Navy. He was deferred during his senior year at a medical school by his local draft board. He then told his local draft board he wanted to take the year's internship.

They said, "All right, we will defer you."

They had the machinery set up for deferring him. They deferred him. Then he went to the local draft board and said, "I want to become a resident."

He explained how he had the opportunity to become a resident in another state. He became a resident, and they deferred him.

It was an excellent board; they kept track of the fact that he was a resident and, at the end of the year, they sent word to the board where he had transferred and said, "Now we want this man."

The board wrote back, "Why, we can't spare this man. This man is an

industrial physician, employed by three companies here who are doing war work and has been so employed for nine months, and he is now regarded as being indispensable."

There was a man hiding out as a resident and he wasn't a resident. He took three months of a residency and then quit, and took a job that paid him more than he would get as a first lieutenant, probably.

There are a number of cases of that kind. So that we want to impress upon the deans that these men are in the Army all the time. They are in the Army when they are interns and residents. At the end of this time we expect to call them.

They are entitled to full medical attention while they are at the school, because they are members of the military forces, and that is part of the soldier's right—full medical attention.

The machinery has been set up differently in different service commands. On account of the shortage of physicians, we would like to have the colleges carrying on their same program for taking care of these soldiers, and I believe it is written in the contract.

I know that you are confused. You receive directives from the service command that you can interpret any way. A lot of War Department directives, I know, are issued that way. You can read them over and interpret them one way and the next day you get another directive and it seems to be the opposite. But don't let it worry you. You will probably come through all right. (Laughter)

I might tell you a little story that was brought from England by the Air Marshal, Sir Harold Wittingham, that I heard the other night, about a trade union in England. They were formulating a coat of arms and a motto for the trade union. They drew up the coat of arms all right, but the motto they had was some English motto. Someone said, "All of these big societies have Latin mottoes and all of our nobility, on their crests, have a Latin motto. Why can't we have a Latin motto?"

So, they looked around and finally found a man who had a little more education than the average, and they asked him if he had studied Latin.

He said, "Yes."

They said, "You work on a motto for us."

So, he came back to the next meeting and said he had one, it was "Illegitamus non-carborundum."

So, they adopted the motto. Finally a little cockney, after it had been adopted, said, "Well, I don't understand the motto. Will someone explain it?"

They dug up the fellow, and he said, "It means 'Don't let the bastards grind you down'." (Laughter)

So, don't worry about all the directives you get. (Laughter) Just go to your PMS&T and see if he can help you out.

I would suggest that, as the greater part of this program is in the hands of Colonel Fitts, we wait until he presents his part and then any questions we will be very glad to answer.

Report on Training in Medicine and Premedicine under the Army Specialized Training Program*

FRANCIS M. FITTS, Colonel, M. C., U. S. Army
Army Specialized Training Division
Washington, D. C.

There are now over 13,800 soldiers studying medicine under the provisions of the Army Specialized Training Program in the approved medical schools in the United States. It is anticipated, and desired, that this number will remain relatively constant throughout the period of the present Unlimited National Emergency, and for six months after its termination, as provided by law.

The full cooperation of the medical schools and colleges in membership in the Association of American Medical Colleges has been assured the armed forces in furthering the training of enlisted personnel of both the Army and the Navy in the field of medicine. It is most fitting that, as the representative of the Director of the Army Specialized Training Division, I should today submit to you a report of the current status of such training in the Army, and an outline of the Army's plans for the future in this field of endeavor.

May I begin by repeating a basic statement regarding the Army Specialized Training Program made in Chicago in February of this year by General Dalton, Director of Personnel of the Army Service Forces. Many of you were present at that meeting of the Annual Congress on Medical Education and Licensure, and will remember General Dalton's address. It constituted the first comprehensive expression of the forthcoming program of the Army for the training of enlisted men in the highly specialized fields of medicine, dentistry, and veterinary medicine. The objective of the entire program was there stated to be: "To meet the needs of the Army for specialized technical training of soldiers, on an active duty status, for certain Army tasks for which its own training facilities are insufficient in extent or character." General Dalton then continued: "To that end the Army will contract with selected colleges and universities for the use of their facilities and faculties in effecting the training of selected soldiers in courses prescribed by the Army. This plan will enable the Army to make selection of qualified young men for this training on a broad and democratic basis without regard to financial resources."

Training has been begun in the field of medicine, and with your assistance and cooperation will be continued. The Army needs additional physicians. It will need more each year of the emergency to replace the annual losses among medical officers. The resources of civilian communities are being rapidly exhausted. Replacements cannot be procured from among physicians in civilian practice; they must be sought among the young doctors who are completing their medical training—from among the graduates of the approved schools of

* Read at the Fifty-fourth Annual Meeting of the Association of American Medical Colleges, held in Cleveland, Ohio, October 25-27, 1943.

medicine upon the termination of their prescribed months of hospital internship. To assure the availability of these replacements, and their obligation to the Army, enlisted men fully qualified for training in medicine have been, and will be, assigned to Army Specialized Training units located at all the approved schools of medicine in the United States, and, under War Department contract with each institution, detailed for instruction in medicine.

On September 30, 1943, the number under training by class was: Freshmen 3,834, Sophomores 3,767, Juniors 3,353, Seniors 2,759—a total of 13,713. Since that date over one hundred medical trainees have been added to the program.

The enlisted men thus far selected for this category of specialized training are those already in attendance at approved medical schools; the Army Specialized Training units to which they have been assigned are the units at the individual schools attended; and the medical instruction contracted for—the standard curriculum of the institution itself. Indeed, the status quo has been maintained even further: individuals accepted for admission to certain future entering classes in medicine, who are in or enter the Army, are being selected by the War Department for training in this field, and will be assigned to the Army Specialized Training unit at the school by which accepted.

Since the War Department policy for current selection and assignment for training in medicine is such as described, the question may obviously be raised: "Why should not these enlisted men continue their medical studies on an inactive duty status—and at their own expense?"

Army specialized training is a definite military duty to which carefully selected enlisted men are assigned on an active duty status, just as soldiers are assigned to other military responsibilities. The wisdom of including their training in medicine in the Army program is apparent. The study of medicine is their present contribution to, and participation in, the war effort.

I myself wonder whether I would have been able to resist the temptation of joining the Marines—the Navy—the Army itself, if 1917 had found me in the Freshman or Sophomore year of my medical education. I am quite positive that I would not willingly have remained out of uniform in order to prepare myself for the study of medicine.

The youths of today are no different from their fathers. Assignment to the active military duty of training in medicine has an undeniable morale value. It has simplified the problem and clarified the issue for many fine youngsters who otherwise may have been lost to medicine—and to the Medical Corps of the Army.

Then, too, we must look forward to the not-too-distant future when the potential medical students will have entered one of the armed forces; when the entering Freshman classes in medical schools can no longer be filled from civilian sources. Unless measures are adopted for selecting from among these enlisted men our future medical officers, and for their instruction in the sub-

jects essential to their subsequent medical training, admission to schools of medicine will be limited largely to women students and to those physically unfit for military service.

It is true that the obligation of military service may have been deferred by Selective Service for many others—even those who are not pre-Pearl Harbor fathers. However, occupational deferment as a positive source of medical students—either in quantity or quality—cannot be counted upon as a means of assuring a sufficient number of matriculants in medical schools each year. The Army cannot count on such deferment, and therefore considers the selection for and training of qualified soldiers in the premedical phase of medical training an integral part of its program for the transformation of enlisted men into medical officers.

The number of enlisted men to be detailed for such studies is based on the requirements submitted by the Surgeon General of the Army for loss replacements for medical officers. This figure has been set at 4,200 each year. Expressed in terms of an academic year, this requirement will necessitate the graduation of 3,150 enlisted men from the Senior classes of approved American schools of medicine during each nine months' period.

Since, by agreement with the Navy and the War Manpower Commission, the Army is limiting its request for vacancies in Freshman entering classes to 55% of their capacity, i. e., to approximately 3,600 places, the demand schedule of the Surgeon General can be met only if attrition in medical training is kept to 10%. The experience of the past few years has been, I believe, that scholastic failures in the four years of medical training approximate 16%, the losses occurring principally in the preclinical years. A lowering of this percentage constitutes a decided challenge to the Army. The problem must not be solved by a lowering of academic standards. The selection, the preparation, and the application of soldier-students must be superior.

For the coming year the soldiers entering upon the study of medicine, as well as those now in medical schools, will have been selected by you individually for your own individual schools. Only a relatively small number of these require additional premedical preparation under the Army Specialized Training Program: those in the Medical Administrative Corps, the Officers' Reserve Corps, or the Enlisted Reserve Corps are, in the majority of instances, completing their premedical studies on an inactive duty status; others still under Selective Service jurisdiction have been granted deferment for that purpose. Only the accepted members of the Enlisted Reserve Corps who were called to active duty before the middle of June, and a few other enlisted men accepted for 1943 and 1944 entering classes, have been assigned to AST units for the completion of various prerequisites for matriculation. The number is small, about 700. There appears no way of anticipating how many of this category will require additional premedical work.

We must, however, make every effort to compute the number to be trained in premedicine in order to fill vacancies reserved for the War Department from

1945 on. For this purpose, on July 1, 1943, a rather long letter was addressed by Colonel Beukema, the Director of the Army Specialized Training Division, to the dean of each medical school participating in the program. In it we endeavored to clarify certain details of the professional and preprofessional phases of the Army program, with a view to facilitating forthcoming negotiations for the reservation, under contract with the War Department, of a definite number of vacancies in the Freshman entering classes, beginning on a date to be agreed upon by you.

I regret that the letter was not more explicit, especially on one point: vacancies reserved by you for Army-selected trainees cannot be filled by both the school and the Army. For this reason the date of the academic year for which a definite number of places are reserved for the War Department is of great importance both to you and to the Army.

You have selected, or will select, the matriculants for classes entering prior to that date. The individuals so accepted, if they are in the Army, or if they enter the Army through call to active duty or through induction, will be assigned to the AST unit at the school by which accepted. The Army accepts the responsibility of selecting—with your assistance—the enlisted men who will be assigned to fill the Army-reserved vacancies in that and subsequent academic years.

You are requested not to accept anyone for these classes who is either in the Army or still in civil life, with a view to his assignment to the Army Specialized Training Program for instruction in medicine. It will not be possible for the Army to attempt to honor such commitments other than through routine screening as described later.

While all the contracts for medical training have not been received, from those now on hand it appears that the Army is not requested to fill specific vacancies on an anonymous basis until 1945. Based on the number and occurrence of places in the Freshman entering classes, the Army Specialized Training Division in Washington is formulating plans for the selection of the qualified enlisted men who ultimately will be assigned to fill these vacancies, and for their necessary preparation for such assignment.

These plans and those for the assignment of premedical trainees to medical units are, I am sure, of vital interest—and importance—to each and every one of you who have devoted so many years to these problems. They are the real crux of my paper.

While the procedure for such selection and assignment have not been definitely determined, may I here quote a statement made by the War Department on April 29, 1943, in a directive regarding the selection of Army personnel for professional and preprofessional training. Many of you will recall these phrases which, then and now, constitute a veritable credo in the choice of the enlisted men whom you will first be requested to train in medicine in 1945. This directive states the principle that "Enlisted men recommended by ASTP selection

boards for assignment for preprofessional or professional training at any level must be thoroughly qualified as regards fitness and aptitude for professional training. Their scholastic ability must be such that attrition in both the premedical and the medical phases will be held to a minimum. To assist ASTP selection boards at STAR units and elsewhere, representatives of each approved school of medicine within each service command and the Military District of Washington will be appointed as civilian consultants. Full utilization will be made of the experience and advice of such consultants in the definite selection of trainees for preprofessional and for professional training. While each ASTP selection board has the direct responsibility of making appropriate recommendation in each case, the vital importance of the advice of consultants must be borne in mind in view of their accumulated experience in the evaluation of college credits and of fitness and aptitude for the study, and the practice, of medicine. The final objective of such recommendation is not so much the admission of a student to a school of medicine, but rather the selection of a candidate for a commission in the Medical Corps of the Army of the United States, and for the future practice of medicine. The procedures for the selection of enlisted men for assignment in medicine under the Army Specialized Training Program will be no less thorough and exhaustive than those now in common usage for acceptance for admission to the accredited professional schools throughout the country."

You may be assured of the sincere desire and intention of the War Department to effect proper selection. Let us now examine the tentative plans for its accomplishment.

We will consider the time at which selection should be made (for convenience we will usually refer to such procedures as "screening"), the time and the place of screening, the number to be selected and the rate, and finally, the method of selection—screening itself.

As you know, the War Department has adopted a curriculum for premedical training which is fifteen months in length, exclusive of the furlough periods between terms. The academic term in effect in the Army Specialized Training Program for all instruction, other than professional, is a period of twelve weeks. The instruction in the first two of the five terms of the premedical curriculum is common to various fields of Army specialized training. These terms are a part of the Basic Phase Curriculum originally designated as Basic Engineering. In these two terms, the trainee pursues courses of instruction in college mathematics, physics, general inorganic chemistry, English, geography, and history.

Those pursuing this Basic Phase Curriculum who are selected for ultimate instruction in medicine or dentistry will be assigned to Term III of the Preprofessional curriculum. Those not so designated are available for specialized training in other fields.

It is thus seen that trainees screened for medicine from the Basic Phase Curriculum will complete their premedical courses in an additional nine months. Likewise, the candidates selected for medicine at Specialized Training and Re-

assignment units—known as "STAR" units—may complete their advanced requirements in three terms, in nine months also. Therefore, as regards the time of selection for preprofessional training, this must be accomplished within ten to twelve months of the opening dates of the classes in medicine in which vacancies are to be filled by the War Department.

Selection will be made both in training units and at STARS. It is anticipated that screening in training units among trainees in the second term of the Basic Phase Curriculum will be the usual procedure. Initially, selection will also be made among those in Term III of that curriculum in which the additional mathematics and engineering drawing cannot but be of distinct advantage to the premedical trainee. Selection among trainees in advanced engineering, psychology, or area and language curricula, is not contemplated.

Screening in training units will be simpler and a more satisfactory procedure than at STAR units where candidates must be considered who, in the past years, have had varying amounts of premedical preparation; many of whom have been rejected for the study of medicine by one or more medical schools. To these we must add enlisted men who have failed in their medical studies, withdrawn from medical school years ago, or studied medicine in various unapproved or foreign schools. All of this heterogeneous group may possibly appear at STAR units. Friends will expect the Army to salvage all of them for medicine: it obviously cannot be done.

The number to be selected each month may be computed as approximately 500. This figure represents those to be selected in training units in the second term to produce 400 qualified graduates of Term V each month for the 3,600 vacancies to be filled during each nine months' period. This is based on an assumed average scholastic attrition in Term II of this Basic Phase Curriculum, and in Terms III, IV, and V of actual preprofessional studies of 5% each. The number selected in STAR units for Terms III and above will provide a very substantial margin for error. The Army, however, cannot provide for a completely uncontrolled number of premedical trainees. Such studies in themselves are of little value in the military service. Enlisted men so trained are not qualified as Medical Department technicians, nor are they prepared for specialized training in fields other than medicine, dentistry, or veterinary medicine. While fictitious accuracy must be avoided, as accurate planning as is possible must be attempted.

As regards the rate of selection, we feel that we should attempt to maintain an equal and regular monthly average rather than attempt to anticipate nine months in advance the very irregular assignments that must be made, both in number and in time, to medical schools.

The actual methods by which enlisted men are to be selected for training in medicine, and for any necessary preparatory studies under the Army Specialized Training Program are, as stated previously, still under consideration. In principle, these procedures will be based on the personal interviews of can-

didates by classification boards in training units and at STARS. One or more representatives of the medical schools in each service command, and in the Military District of Washington, will serve on each board as civilian consultants. These representatives will have the task—and the responsibility—of determining the qualifications of each candidate for the study of medicine, and of making appropriate recommendations. Each trainee designated for interview will appear before local classification boards with a transcript of his academic records, both prior and subsequent to entering the Army, and with appropriate recommendations from the college faculty and from the military staff of the training unit.

The necessity of screening each month at STARS and in several training units in each service command precludes, as a practicable measure, the presentation of the candidates, or of their credits and credentials, to the entire service command Medical Advisory Board.

To limit the number of basic ASTP trainees to be interviewed, and to make selection a positive rather than a purely negative procedure, a preliminary screening will have been made not only on the basis of interest in, and desire for, the study of medicine, but also on aptitude for professional rather than scientific and technical studies.

It is manifestly not possible, nor desirable, to interview each trainee who is completing the second term of the Basic Phase Curriculum. However, if only the formal applicants for the study of medicine are screened, it is felt that the number will not be sufficient to assure a wide choice for the selection each month of the required number of desirable premedical trainees.

Accordingly, steps are being taken for the preparation of an objective type of test which may be considered predictive of aptitude for professional studies. The actual construction of these tests will be done by the Personnel Research Section of the Classification and Replacement Branch of the Office of the Adjutant General—with the cooperation and assistance, I trust, of the committee which in previous years has prepared the Scholastic Aptitude Tests for Medical Schools of the Association of American Medical Colleges. It is realized that testing, as described, must be without prior biological studies. However, Dr. Moss informs me that the construction of satisfactory tests is a practicable possibility.

These tests will be administered each month to trainees beginning Term II of the Basic Phase Curriculum. They will be scored centrally and scores determined which will permit the designation of the trainees who are to be interviewed by the classification board in each unit. If, for example, 500 trainees are to be selected each month for premedical and subsequent medical training, a score would be announced which would assure the careful consideration and interview of, say 1500; thus permitting a choice of one out of three in each unit. While this number of trainees will not all be formal applicants, and many among them may previous to the interview with the classification board have manifested no interest in or desire for the study of medicine, it will constitute a splendid reservoir from which selection can be made.

The average mental ability of individuals in this group, as measured by the Army General Classification Test administered at the time the enlisted man entered the service, places them in the upper forty-two per cent of college freshmen. The successful completion of Term I of the Basic Phase Curriculum, in which at least twenty per cent of the trainees will have been eliminated, is a further assurance of the capacity for and the habit of study. An additional reduction by 5% in Terms II, III, IV, and V each, of those selected in Term II, should be a substantial guarantee of the scholastic ability of those recommended for assignment for medical instruction. With at least 8,000 trainees in the second term referred to, from which 500 are to be screened, I feel confident that the end product will be scholastically competent. It remains to be seen whether the personality and aptitude screening will be satisfactory. The Army is requesting that you assume that responsibility.

Screening at the STAR units will be much more difficult. There are now in or will enter the Army an undeterminable number of individuals who, prior to induction through Selective Service or call to active duty as members of the Enlisted Reserve Corps, have had two or more semesters of premedical studies. Scholastically they may be considered eligible to resume such training in Term III or IV of an adjusted premedical curriculum. Among them may be many enlisted men who would make excellent doctors, and fine medical officers. Also among them, however, are many thousands whose further training in the field of medicine cannot be considered to be to the best interest of either the Army or the Nation.

To reduce this number to reasonable proportions and to exclude the older group of soldiers who wish to resume their interrupted studies, we plan to modify current directives governing selection for the Army Specialized Training Program. We wish to permit the movement to STAR units of enlisted men under 22 years of age with two or more years collegiate preparation for the study of medicine. At present these men are not eligible for the program unless they have been accepted for matriculation for 1943 or 1944 classes in medicine—or have had certain college work in mathematics, or physics, or have definite language qualifications. Indeed the young college graduate who is not a linguist must have had definite training in both mathematics *and* physics.

On the other hand, we do not wish an unlimited number of men above 22 with prior premedical studies to clutter up our STAR units in which the enlisted men awaiting classification and assignment to training units are charged against the total authorized number in the program. At present, of the candidates over 22 who have had one or more years of college, only those who have had at least a year of mathematics *and* physics at the college level, or have certain language qualifications, will be sent to STAR units. I see no reason to change this, thus opening the doors to all the enlisted men who, with three or more years of college preparation, had been rejected by you in previous years; and to those who have failed in, or withdrawn from, medical studies in both accredited and non-accredited schools. We cannot ask you to screen this group

just for the sake of salvaging the rare individual whose training in medicine may be desirable.

It is also probable that of men below 22 with such premedical credits only those with unusually high scores on the Army General Classification Test will be considered for selection at STAR units. Those to be interviewed here will have in their possession a transcript of their academic training in civil life, and any pertinent civilian and military recommendations.

Those selected at STARS will be assigned to Term III or IV of a preprofessional curriculum. Because of the integration of the courses in organic chemistry and of psychology in Terms IV and V, and also that in belated physics, no assignment will be made to the latter term. If qualified for training in medicine itself, movement to an appropriate AST unit for instruction in medicine will be accomplished as for graduates of Term V.

The selection of individual applicants by you in peacetime for admission to your individual schools was a difficult task. General selection for training in medicine at large during the national emergency will present many additional problems; many anticipated and unanticipated perplexing difficulties. I do not believe that these difficulties are insurmountable; nor do I believe that the enlisted men so selected will be inferior in quality to those previously entering upon the study of medicine under peacetime procedures.

The procedures and policies for selection should be uniform throughout the country. The standards, criteria, and ideals governing such selection must be maintained at the highest level. While it may be feared that such impersonal selection result in a deplorable nonchalance, I frankly do not believe that such an attitude is to be anticipated. Despite the unavoidably wide difference in the qualifications of the individual applicants previously accepted for matriculation in entering classes in the seventy-six approved schools in the United States, I feel confident that the common ideal is high, and that only unusual circumstances have necessitated the acceptance of applicants whose tangible or intangible qualifications are questionable.

In each service command the deans, or their representatives, will be appointed as civilian consultants to the War Department. The Medical Advisory Board so constituted in each service command should meet in order to work out policies and procedures. Based on the number of training and STAR units to be visited for periodic screening, arrangements should be made for one or more consultants to conduct screening operations and to make selections in the name of the group. To obtain the maximum nation-wide uniformity, suggestions for both policies and procedures will be published by the War Department. The Army Specialized Training Division will welcome the suggestions of this association in the preparation of such a directive.

Trainees recommended in Term II for ultimate medical training will, if they successfully complete that term, be assigned to Term III, premedical, at the same institution or elsewhere. Those selected at STAR units will be assigned for training in the designated term in a college or university in which

suitable vacancies exist. If a minimum of 475 are assigned each month for premedical training, we estimate that there will be constantly in preprofessional sections in AST units approximately 4,100 trainees. The addition of those selected at STAR units will of course increase this number.

By beginning screening procedures in January 1944 for assignment to premedical studies in February or March, we will be able to select, train, and qualify a sufficient number of enlisted men to meet our commitments during 1945—and thereafter. The number in premedical training will increase from the present 700 to over 4,300 by September 1944, after which the number in training should be maintained at approximately that level.

For this purpose, preprofessional training will be initiated at appropriate dates in contracting colleges and universities in which the quantitative and qualitative performance in premedical preparation throughout the past twelve years justifies their utilization for this purpose.

Definite high standards of scholastic attainment will be set as a basis for the disposition of trainees in all terms. In the fourth or fifth term it will, perhaps, be possible to administer the Scholastic Aptitude Tests for medical schools employed during the past fourteen years, in order that the scores of Army trainees be compared with those of unselected premedical students in previous years. Recommendation for training in medicine, upon completion of Term V, will be a function of the classification board at each unit. It is not, at this time, contemplated that a subsequent selection by the Medical Advisory Boards will be necessary.

This brings me to the much discussed question of the assignment of Army Specialized Training Program trainees for instruction in medicine itself by number rather than by name. I assure you that the War Department is keenly aware of the value, and the desirability, of the individual being admitted to the school selected by the prospective medical student who is himself personally acceptable to the individual school. No argument, or eloquence, is necessary to convince anyone in the Army Specialized Training Division of this as an ideal procedure for the assignment of Army trainees.

It is axiomatic that administrative procedures must be considered secondary to functional results. If assignment by name rather than by number were reasonably possible, provisions should be made to effect the continuance of the peacetime methods of admission and matriculation which have proved so successful in previous years.

Personally, I do not feel that is a practicable possibility. I have examined the suggestions which many of you have sent the Army Specialized Training Division, and still I see no solution of the problem other than the numerical distribution by the War Department of qualified trainees upon the completion of their premedical instruction. Basically, such distribution must be governed by the number, the location, and the date of available Freshman vacancies in medical schools. It is planned that the distribution of the graduates of any one premedical unit will be as wide as possible, not necessarily limited to one service

command, and that in each unit trainees will be assigned by name "vertically," rather than "horizontally," from the upper, middle, and lower thirds of the class, with additional preferential choice according to relative standing in each third.

In the interval between the completion of premedical training and actual instruction in medicine the enlisted man is of little real value to the war effort even though he is attached to an Army hospital for duty and training. This interval should be as short as possible. Unfortunately, the irregularity of the opening dates of medical schools and the variable number of available vacancies preclude an uninterrupted and regular flow from premedicine into medicine, and necessitate such interim duties varying in time from one to six months.

The responsibility of moving these trainees to designated units is purely military. However, for the classes in which you have reserved the selection of matriculants, the Army will be able to move those in the military service only if you keep the Army advised as to their military status and location. Only you know who these accepted matriculants are. I urge that with the least practicable delay you procure such information and transmit it to the Commanding Generals of the Service Commands in which your schools are located. This information should include for each accepted matriculant under army jurisdiction: name, Army Serial Number, on active or inactive duty status, Army unit and location, on actual location in civil life; whether premedical requirements have been completed, or the date on which it is anticipated that such requirements will have been met.

Accepted applicants who are members of the Enlisted Reserve Corps have been authorized, as you know, to complete their premedical requirements on an inactive duty status and at their own expense. They will be called to active duty upon the completion of such studies. If time permits, they will receive basic military training prior to movement to the Army Specialized Training unit at the school by which accepted.

This training will also prove of value to accepted matriculants still holding Reserve or Medical Administrative Corps commissions. If they are planning to submit their resignations with a view to enlistment and assignment to the Army Specialized Training Program, this should be done well in advance of the actual dates of matriculation.

As regards accepted matriculants not under Army jurisdiction, definite provisions have been made for their assignment to the Army Specialized Training Program if they are inducted into the Army. Those who require additional premedical training must complete their basic military training prior to assignment to the program for this purpose. Those, however, who have completed their premedical requirements will be assigned for instruction in medicine even though their basic military training may not have been completed. All assigned for premedical training, inductees or enlisted reservists, must make a qualifying score on the Army General Classification Test.

This question of qualifying scores on the Army General Classification Test

by medical students is interesting, and one that, at a future date, should receive careful analysis and correlation. It is enough here to say that all training under the Army Specialized Training Program is contingent upon a score of 115 or better. When the members of the Enlisted Reserve Corps in medical schools were called to active duty, this test was administered to them at reception centers. To my surprise, and dismay, 8.72% of those in medical schools failed so to qualify; in dentistry 22.46%; and in schools of veterinary medicine 18.87%. It was thereupon necessary to publish a directive to the effect that professional trainees—those in medical, dental, and veterinary schools, and accepted matriculants who have completed all premedical requirements are not required so to qualify. This was rather embarrassing. It will be interesting to watch the progress of that 8.3/4%. Our first casualty was a boy who scored a meager 91—he could not keep up the pace in the first semester of the Freshman year. What will be the frequency distribution of failure, and other scholastic difficulties?

These trainees—the failures and those with conditions that cannot be made up together with other work—will not be permitted to repeat either an academic session or term unless there were extenuating circumstances beyond the trainee's control. This should be impressed upon all enlisted men in your schools since the only alternative to scholastic success in medicine is assignment to other military duties. They will not be transferred to other Army Specialized Training units for continuation of medical instruction.

In fact, the War Department is not requesting that vacancies be reserved in classes above the Freshman, other than those necessary for the regular progression of Army trainees from class to class. The Army does not feel itself competent to evaluate the credits and credentials of enlisted men who are candidates for the resumption of medical studies. Indeed, in order to continue the instruction of Army trainees who complete the Sophomore year of training in the Schools of the Basic Medical Sciences, we are asking that the present arrangements between deans be continued in effecting transfer for their Junior studies.

Many of such students have in past years entered the Canadian schools. I regret that this cannot be considered for Army trainees. Training units will not be established in institutions outside the United States. Army personnel in Canadian schools are eligible for Army Specialized Training in medicine only if individually accepted for transfer to approved American schools.

Many inquiries have been received from women students in American medical schools, and from young women who contemplate studying medicine, as to their eligibility for Army Specialized Training in the event that they enlist in the Women's Army Corps. The policy of the War Department is that enlisted women are not eligible for assignment to the Army Specialized Training Program for training in medicine. This policy has been adopted because the additional women physicians especially required by the Army may be procured from among those already trained in medicine, and because, not subject to induction through Selective Service, young women are under no obligation, either actual or potential, to interrupt or to postpone their preparation for the practice of medicine.

I have not spoken of administrative procedures in AST units, of contracts; nor of military instruction or physical training. Nor will I touch on the question of group-housing and group-messing. My paper is already too long. Let me omit these problems, as well as that of schedules, academic vacations, and furlough periods. One point, however, should be clarified—indeed has, I trust, been clarified by recent War Department directives: extra-curricular activities of instructional value are authorized, but only upon specific recommendation by the dean and the approval of the commandant.

In view of the assistance which medical students may be to local hospitals and clinics in supplementing the depleted staffs of residents and interns, it is hoped that creditable undergraduate extern- and internships may be developed which are of real value to the student; and which, accordingly, may permit the professional utilization of Army trainees in lightening the burden of the already overworked personnel of these institutions.

I have talked overlong, and, in my desire to inform and to clarify, have, I fear, but added to the confusion. Each one of you has problems and annoyances in connection with the Army program. I feel that the majority of these may be solved satisfactorily by your commandants. Maladjustment between scheduled classes and hours for physical and military training must not result in jeopardizing the strictly academic phase of the trainee's training. May I impress upon you your responsibility for the academic progress of the enlisted men whom, under contract, you have undertaken to train in medicine.

The Premedical and Medical Phases of the Navy V-12 Program*

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I have been asked to speak to you on the premedical, and medical phases of the Navy V-12 program. It is my intention to give you a short resume of this problem as viewed by the Navy, why it was necessary for the Navy to enter these fields, how the problems were approached, the solution arrived at, and the workings of the solution. A descriptive chart showing the distribution of Navy premedical students and the Navy's quota in each medical school has been furnished to you.

Previous to the national emergency, the Armed Services customarily drew their trained professional personnel from the educational institutions of the country—personnel who had attended college and professional schools in a civilian status at their own expense.

Under the pressure of the war effort, this reservoir of potential professional people began to suffer very serious drains. Competition for the services of these same individuals set in early and rapidly increased. Even before the United States was involved in hostilities many young men were leaving school at an early stage to take jobs or to enter military service. When the Selective Service first began operation even more of these same young men were taken out of their preprofessional and professional preparation, but in these early stages of Selective Service the age limit was high enough so that many were able to finish at least their preprofessional work, and in most instances could be deferred through their entire professional preparation.

The Navy's entrance into the preprofessional and medical educational fields was a realistic adjustment to a situation forced upon it by the Selective Service law applying to 18 year old males. The Navy had to insure the supply of an adequate source of candidates for medical officer training. The Army and Navy and the War Manpower Commission saw very clearly that there would be no young men for professional training unless special steps were taken.

The problem faced at that time is well known to everyone. Most college students became 18 years of age during the first year of their undergraduate work. Medical schools quite naturally were unwilling to grant to a student at that early stage even tentative admission to medical school where entrance could not take place until two or three years later. Selective Service had no way of distinguishing between a bona fide premedical student in his first term of undergraduate work, and another student who was using preprofessional training as a means merely

* Read at the Fifty-fourth Annual Meeting of the Association of American Medical Colleges, held in Cleveland, Ohio, October 25-27, 1943.

of preventing induction into the armed services. Furthermore, even if protection from Selective Service was granted to all such students, it was clearly recognized that many of the best of these young men would enter voluntarily into the armed services in large numbers because of the social pressures involved.

In the face of this problem, the Army and Navy set up college programs to insure for themselves the trained personnel who are requisite to the efficient operation of the armed forces.

There are approximately 6,500 Navy premedical and predental students assigned to eighty-nine universities and colleges throughout the country. They are scattered through the various years of preprofessional education. The premedical students for the V-12 program were selected with procedures similar to those used for other students. Students who entered the program on July 1 came from three sources:

1. The enlisted reserves constituted the first and largest group. These students were enrolled in the premedical curriculums in colleges and universities approved for the V-1 program. The members of this group who were near the end of their fourth semester of work or who had completed four or more semesters were given a comprehensive achievement examination late in April. Students standing in the lowest 10% of the distribution of scores on this examination were eliminated. The remaining students were permitted to continue with their preprofessional courses or to enter a medical school, provided they were accepted for admission.

2. The second group of students came from among the enlisted men in service. These students were selected on recommendation of their commanding officers, provided they had a high school education and had attained a specified minimum score on the general classification test.

3. A third group of students were selected directly from civil life. These were chosen in terms of a rigid screening procedure which included (a) a scholastic aptitude test given at approximately eighteen thousand centers throughout the country, (b) a physical examination, (c) an interview by a naval officer in the office of Naval Officer Procurement and (d) final selection by a committee of three, including a naval officer, a business man and an educator. This committee considered all the information available on each applicant. From those finally selected for the V-12 program, only the highest ranking students with a preference for premedical training were admitted to the premedical curriculum.

Further screening of premedical students will be done on the basis of scholastic records and comprehensive achievement examinations. An achievement examination similar to that given late in April of this year will be given to other students from the V-12 group during the fourth term of work. Also students entering the prescribed preprofessional curriculum directly from civil life will be given an achievement examination near the end of their first two terms. Final selection of students for medical schools will be made in cooperation with the medical schools on the basis of these records.

The preprofessional curriculum was developed in consultation with specialists in the field of education and was worked out on the basis of past practices in colleges and universities and has the wholehearted approval of the Council on Medical Education and Hospitals and the Association of American Medical Colleges. It is generally believed that it represents the best type of preprofessional education that has been offered at colleges and universities. It extends over five terms of sixteen weeks each, a total of twenty months of premedical preparation, two and one-half academic years. In a number of instances a student will receive three full academic years of premedical education as the Navy allows a student to continue in college if the interval between finishing premedical work and entrance into medical school is of several months' duration.

The Surgeon General, Doctor Ross T. McIntire, desired that any plan for the selection of Navy premedical students for entrance into medical schools should be as similar to the methods utilized in peace days consistent with the administrative problems and the Navy's responsibility to show no preference to individual students or to individual schools. He was against any plan which made explicit a distinction between medical schools. The Navy is committed to accepting into the program all medical schools approved by the Council on Medical Education and Hospitals of the American Medical Association, and any plan for discriminating in favor of one class of medical school is unfair and not in keeping with the spirit of the V-12 program.

Various modifications of the plan for the selection of premedical students for medical education have been received from different parts of the country. The majority of these plans asks that the individual medical school be given the sole responsibility in the selection of candidates to enter their school. Other plans have suggested that certain schools be allowed the privilege of selecting their students and the ones that they did not select would be placed in a pool for assignment to schools that they inferred had lower standards of admission. In all these plans the individuals making the recommendation have failed to appreciate not only the administrative problems involved but also that in war time the Navy must see that impartial and fair treatment be accorded to all Navy V-12 trainees for one man cannot be assigned to school because his father or grandfather went to medical school and the next one to fight and possibly die unless both have received the same consideration of their capabilities and usefulness to the service.

The statement has been made that many of the most desirable candidates will not apply for premedical education unless assured that they will be assigned to the medical school of their choice. I do not believe that many of you will support that statement, for how many, if any, students beginning premedical education have been assured that they will be accepted for medical education by the school they desire to eventually attend, and certainly under the Navy program no one can be assured of assignment to any medical school unless he has been found qualified in all respects by the medical schools themselves.

After some discussion as to possible methods of selecting students of the

highest quality to enter medical school, the Surgeon General proposed the following plan:

(a) The medical and preprofessional schools located in different sections of the country be grouped according to their location in the various Naval districts.

(b) A selection committee composed of the deans of the medical schools or their representatives, in each Naval district together with the director of training of the district be charged with the responsibility of selecting qualified premedical students for entrance into medical schools.

(c) A reciprocity agreement be established between these screening committees in the various districts so that in the event of an excess of qualified premedical students in one district such excess may be assigned to districts where a deficiency may exist.

(d) The premedical students after completing their third term of preprofessional training submit their requests for medical training via their commanding officers to the medical screening committee in the appropriate Naval district. Applicants will have the privilege of designating three choices as to their preference of medical schools. This preference will be honored insofar as practicable, but will be conditioned by the Navy quota in the individual medical school and the student's standing on the list of qualified candidates to be prepared by the screening committee. Due consideration will be given to the interim between completion of preprofessional education and matriculation in the chosen medical school.

(e) Premedical students who are selected as qualified for entrance into medical schools be assigned to such schools upon completion of their prescribed preprofessional training. Should there be an interval of several months before matriculation is possible, the preprofessional student may either continue preprofessional work in subjects that will further fit him for medical training, or be assigned to a Naval hospital for the interval to duty under instruction in the laboratory fields of medicine.

In other words, this plan allows the deans or their representatives of the medical schools in each Naval district, acting as a committee, to have the opportunity to examine carefully the records of all applicants and to select only those students they would be willing to have enter their own medical school. A personal interview with the applicants may be had if desired by the committee. By following this procedure, the deans would undoubtedly have no objections when at a later date the students they have selected enter their own schools.

To be more specific, a dean or his representative in any Naval district sitting with the committee of deans, will have the opportunity to advise the rejection or selection of those premedical candidates who have stated a preference for his school and the Navy will fill its quota in the freshman class of his school from those premedical students who were previously found qualified and approved by the committee of which the dean is a member.

The descriptive chart given you shows the various Navy preprofessional and professional schools as they are located in the various Naval districts and the numbers of preprofessional students that are at present studying in these areas and the quotas that the Navy will have to fill in the various medical schools. I would like to call to your attention that when this program was initiated the plan of selection of premedical students for medical education had not been thoroughly worked out also because preprofessional students were allowed to continue in most cases in the areas where they were studying as civilians, we have now in some Naval districts an excess of preprofessional students and in other Naval districts a deficit. We are asking that where there is an excess of qualified premedical students in one Naval district that a reciprocity agreement be established between the various district screening boards so that an equitable distribution may be made and that we will be able to fill our quotas in areas where we will not have sufficient qualified premedical students. This unbalanced assignment of premedical students in relation to the location of medical schools will undoubtedly be corrected through subsequent assignments by increasing the numbers of students in the areas where we are deficient and decreasing the number of preprofessional students in districts where we now have an excess.

The medical schools have the important responsibility of offering medical education of the highest quality to the students assigned them and in helping these students put forth their best efforts so that the Navy and the country will have a continuous reservoir of outstanding medical officers to meet the needs of the service and the civilian postwar period.

The ultimate goal of the medical phase of the Navy V-12 program is to insure a constant flow of medical officers for the Naval service, to give these prospective Naval doctors the benefits of the very best medical education and, while doing this, to preserve the normal pattern of medical school life and to safeguard the scholastic integrity and identity of medical education. The medical schools are not asked or required to change their curriculums or methods of teaching and are not asked to lower their high standards. It is the Navy's responsibility to defray the cost of the student's education and the school's responsibility to give this education unhampered.

The students assigned to schools will have been found morally, physically and intellectually fit to enter medical education as the result of a previous thorough screening by the Navy in cooperation with the deans or their representatives. The Navy will accept the recommendation of the school for withdrawal of a student for scholastic failure, inaptitude or other sufficient reason.

It is believed that this program will not alter medical education or have a deleterious effect on the student and future doctor.

The faculties of medical schools already depleted by many members having joined the armed forces will be heavily burdened with extra teaching responsibilities, owing to the accelerated teaching program and increased en-

rollments. It is hoped that they will be able to maintain the same degree of efficiency, vigor and cheerfulness of other years.

As a result of the Navy's assumption of all the financial obligations for the student's medical education, the payment of a salary plus allowances, the provision of full medical care and hospitalization when sick, there should be fewer scholastic failures, an upsweep in scholastic attainments and a physically and emotionally healthier student. The type of military uniform worn by the medical student is in keeping with his scholastic seniority and the type of education pursued. Being in uniform will protect the student from unwarranted criticism and help to combat and ameliorate the restless, unpleasant feeling that young men of this age group have experienced; that is, the impatience at not being more actively engaged in and directly identified with the armed services.

The Surgeon General has stated emphatically that it is the desire that the Navy's entrance into the medical educational fields not lower the standards or change the requirements, and no one will be assigned to medical education by the Navy unless he has been found fit and qualified in all respects by the deans or their representatives. If a modification or change of this plan is necessary, after a fair trial, he will recommend that appropriate adjustments be made. The Surgeon General appreciates the full cooperation and reassurance that the medical schools have given to him in seeing that this program is successfully accomplished, and it is his desire as much as yours to maintain and preserve the identity and integrity of medical schools, and that this program be successfully accomplished in mutual cooperation and respect and concluded with mutual benefit to both.

The Navy V-12 Program

COMMANDER A. S. ADAMS, U. S. N. (Ret.)
Assistant for V-12 Program Training Division
Washington, D. C.

There is a story going the rounds in Washington to the effect that the only way to get a hearer for anything that you have is to tell him it is in strict confidence. So, may I speak to you in strictest confidence, but may I give another implication to that word "confidence," because the confidence that I have in mind is the confidence which the Navy has in the splendid job which has been done in medical education during the past four months for the Navy V-12 students. We hope that that confidence is equally held by you.

There is no question about the importance of this job in which we are involved. I sometimes think that my own relation to it is something like that of a seaman in a story told by the commander of the submarine "Sturgeon." I think some of you have heard this story but I do believe it will bear repeating.

The commander of the "Sturgeon" was shorthanded for lookouts, and he found one of the men in the messmen branch who was very alert and seemed to have extraordinarily good vision. So he sought to have him brought up on deck to teach him to be a lookout.

This lad had not had any seamanship training, but the commander got him up on deck and explained to him the sector in which he would carry out his lookout duties. Then, to impress upon him the responsibility that lay upon him, he said, "Now, I want you to realize that you, and you alone, are responsible for many million dollars' worth of government property. In the measure that you see any danger in your sector, the safety of this ship depends."

And the boy said, "Yes, sir."

He went on to say, "Not only that but the actual lives of sixty or seventy officers and men depend upon the efficiency with which you carry out your duties."

And the man said, "Yes, sir. And then there's me, too." (Laughter)

Well, in discussing medical education, I can't help but feel that the time may come when I am lying on some table and "there's me, too." (Laughter)

My responsibilities in connection with the V-12 Program are those of overall administration. I think you have all received copies of the Navy V-12 bulletins pertaining to premedical, predental, medical and dental education. But, just for the sake of the record, I wish to state there are eighteen such bulletins now and the numbers are: 1, 2, 22, 26, 33, 37, 54, 55, 60, 65, 68, 75, 76, 78, 81, 83, 98 and 117.

It has been my responsibility to try to keep these bulletins reasonably consistent. Of course, the judge of that will be in the efficacy with which you find them applicable to your work.

In this administrative job which I have, we have to tie together three im-

portant activities: first, the individual as a member of the Navy; second, the medical school as an instructing agency, and third, the relationship between the Bureaus of Medicine and Surgery and Naval Personnel.

I should like to take this opportunity, publicly, to say that the stories that you have heard about inadequate liaison in Washington are all wrong, in so far as they apply to the relationship or the liaison between the Bureaus of Naval Personnel and Medicine and Surgery. It has been a very happy experience for me to work with Dr. Hogan and Admiral McIntire.

In order to get these three items tied together, we studied carefully to see how it would be done, because, in the first place, we wanted to get a procedure which would not confuse activity with achievement.

We find that, in the hustle and bustle of wartime activity, it is very easy indeed to be busy all day but reach the end of the day without a thing accomplished. So, we tried to get a procedure which would achieve something. And the something that we sought to achieve was a procedure or an institution, if you please, which should be made for the individual rather than the individual made for the institution.

Again, the measure of our success will be determined by how it works.

Our present problem, in which all of the deans have been busily engaged, is to determine those candidates finishing premedical education at the end of this first V-12 term, November 1, who are, in all respects, qualified for medical education. We recognize at once that you haven't vacancies for all of them. You have only last minute vacancies—applicants who, in their last term of work, have not fulfilled the requirements upon which you based your tentative acceptances, applicants who perhaps, unfortunately, have died, or applicants who have gone into some other activity.

Probably no medical school will have more than two or three such vacancies develop at the last minute. But in order that we may have candidates for those vacancies, in so far as they belong in our quotas, we wish to have a certain number of fully qualified applicants. As you know, your committees have been looking over those applicants.

In point of actual procedure (and it has been my great privilege to attend several of the meetings of the deans), it appears at once that it is desirable to establish some sort of absolute standard which shall determine, the country over, who is and who is not qualified for medical education. It isn't enough to arrange the students in numerical sequence, in the order of their suitability for medical education.

Consequently, the idea has been suggested, and I believe that Dr. Rappleye is going to talk further about this, that the students be grouped in, let us say, four groups: the first group to be made up of those individuals who are unquestionably acceptable by any medical school at all, applicants, each of whom you would welcome with open arms. We feel that in this present screening there will be more than enough of such applicants to meet your last minute vacancies in the classes convening in the next month or so.

The second group would be made up of those who are somewhat questionable but, nevertheless, might be considered to be good applicants.

The third group would be those who are fair applicants, and the fourth group, those whom you wouldn't have under any circumstances.

We need to have that classification, because we have to figure out something to do with those people who are not qualified in any respect for medical education. As soon as the assignments have been finished to your classes immediately convening, we must figure out what to do with the second and third groups.

I think we might as well be realistic about this thing. If I am correct (please correct me if I am not), if I were a medical dean, let us say, I would select my students on the basis of the applicants I got; that is, I would seek to get the very best applicants I could, in a given year, and it might well be that, in various years, the quality of all the applicants I might have would vary. So, it is rather difficult, indeed, to strike this common line of those who are positively not acceptable and those who are, perhaps, acceptable.

Well, let us say, then, for this top group, this A group, this 90 to 100 group, evaluated not alone on academic record but upon potential medical officer capability, those individuals are those that in any year would represent the cream of your applicants. There won't be very many of those in these applications that you are now reviewing and for a very good reason.

After all, you have filled up your classes for those occurring immediately and, also, to some degree, those occurring in October. You have looked over this class once, by and large. So, the applications that you are now reviewing represent the residue, those who, perhaps, for one reason or another were not qualified for medical education. Nevertheless, there are those among them who are fully qualified, and those individuals are sought for these last minute vacancies.

Bulletin 117 asks you to cancel all applications made subsequent to July 1, 1943, except for those applications granted up until August 1 for the class convening within the next month or so.

I know that, because of conflicting directives from Washington, you have been troubled in trying to determine what to do. If I am correctly informed, at your last meeting you resolved to accept no candidates for medical school more than a year in advance, and then shortly thereafter you received advice from Washington that you should take all the applications you could get. Doubtless there have been other conflicting and confusing directives.

As I well remember, before I was returned to active duty and was acting as assistant dean of engineering, it used to bother me very much to know the truth, just what was it that was desired in respect to engineering students, and I don't doubt that each of you has raised that question to himself in respect to your medical students.

We set these dates of July 1 and August 1 because we had to start somewhere, in order that we could help you keep track of these students. If we mean what we say, and I assure you that we do, that the institution, the procedure,

is created for the individual, rather than the converse, it is our job to keep track of every one of these acceptable, qualified premedical students and see that he gets to medical school. We can't do that unless we are a party to this joint action.

So, we set the date of July 1 and have requested you to cancel acceptances made for classes subsequent to that date, except for your next class.

Now, I do not doubt that that disturbs some of you considerably. I can readily see how it would. But there is a saving phase of it, in that it is to be presumed that those individuals whom you have accepted are unquestionably fully qualified applicants, and, when their applications come before the screening board, the committee of deans in the appropriate naval district, they again will be selected.

It is also indicated that, since the student may indicate his choice of medical school, he will certainly indicate as his first choice the school which previously granted him an acceptance, and, further, the student is asked to indicate whether or not he has had an acceptance, so that we shall know positively the history behind each case.

The Navy Department cannot guarantee, gentlemen, that each one of those acceptances will be confirmed; I wish that we might, but I am sure you will be a lot happier if we don't make the commitment, rather than that we try to make the commitment and then, through force of circumstance, have to break it.

It would be my considered judgment, however, since we are determined that each individual shall be given maximum opportunity to express himself, that, certainly, 75 to 80 per cent of those acceptances for October '44 will wind up in the medical school of their choice. I hope that you will consider that a proper recognition of your previous arrangements.

Now, I think you will be interested to know what we have in mind in respect to the disposition of these people now being screened, who are finishing their premedical education now.

The group that you reject will be considered for conversion to other training. We would like to have the information on them just as soon as possible so that we may proceed with that retraining, probably for deck officer classifications.

As soon as we determine how many of the second and third groups, the 70 to 80 and the 80 to 90, or the C and B groups, if I may identify them that way, we might have to consider to fill these last minute openings (parenthetically, may I say I don't expect we will need to use any of them), then they, too, may be considered for other training.

If there are some of the superior people left over, it may be that they will continue their premedical education for another term or two, so that they may be considered later, together with the new group which comes up March 1 for your October class.

Now in our directive, the statement was made that the people left over would be considered first in making subsequent assignments. Well, that simply means not that they will be placed at the top of the list, because that might well result

in an inferior individual who had simply lived a year longer, being assigned a place in medical school in competition with a very superior man who hadn't been born the right day. No, they are to be considered, first, in relation to the new group coming up March 1. It is to be supposed that their additional year of training or term of training and their added maturity may make them more desirable candidates, but they do not have to be placed before any further placement occurs.

We will have the same thing going on—the same selection process—for the very few openings developing in April and May. I believe there are eighty-one openings the country over for Navy quotas. So, we will have to ask our selection committees to look over the applications for people finishing their premedical education March 1, to obtain candidates for them. So much, then, for the present problem.

The future problem has already been demonstrated and expounded most capably by Dr. Hogan, and it doesn't seem to me to be worth while for me to explore it further.

It is, may I say, gentlemen, a very challenging experience for me and a very delightful one, too, to have this opportunity to meet with you and to come to know many of you individually. May I say, in all sincerity, that, in the Bureau of Naval Personnel, we feel that the medical schools are doing a magnificent job. We only hope that we will be able to do our job as well.

DISCUSSION

DR. CHAUNCEY D. LEAKE (University of Texas Medical School): Many of us were privileged to be the guests of the Navy in an orientation course regarding the theory and practice of training in the specialized training program. We who were thus favored are unanimous in our enthusiasm for the Army and Navy specialized training programs. Those who spoke to us this morning have made masterful understatements, I think, in expressing the hope that these programs will not lower the standards of admission to medical schools or the standards of achievement in medical training. I think there is a challenge to us to measure up, if we can, to the techniques that have been developed in the Army and Navy in connection with their specialized training programs.

There are four points in these programs that struck us, I think, with great force. They have not been mentioned as part of the theory of training, but they have special significance for medicine. First there is emphasis throughout on rapid and accurate observation; second, there is great attention to training in logical and clear analysis, leading toward soundness of judgment; third, implied throughout all phases of the training, there is inculcation of a sense of personal responsibility, and, fourth, there is insistence on gentlemanly conduct.

These general objectives seem to me to be particularly important for medicine. The techniques employed in connection with these and the more specific technical objectives offer a challenge, I think, to American medical schools in our methods of teaching. The methods emphasize the matters of, first, careful explanation of what is to be done, using every device, including visual instruction and auditory appliances, to assist in that training; second, detailed demonstration of what is to be done; and third, careful, personal supervision of the doing of it.

It seems to me that we can profit greatly by studying the technical methods that are being used in the Army and Navy training programs, whether they are related

to medicine or not, with regard to these procedures. It is the opinion, I believe, of those of us who have seen some of these procedures in practice, that we are going to benefit very greatly in medicine by the standards that have been set up by the Army and Navy. Standardization of the premedical training program alone will have a profound influence on the future course of medicine, through the elimination of so many of the frills of the curriculum that have come along in the last few years.

A suggestion is here respectfully offered with respect to the salvage of those men who do not qualify for the medical training program, or who may be found unsatisfactory as the program proceeds. Why not use the facilities of the medical schools for training these men as medical technicians or as physiotherapy aids or as hospital corpsmen? It seems to me that the background in training that these men may have would qualify them for that future.

DR. C. SIDNEY BURWELL (Harvard Medical School): In the development of the Army and Navy plans, there have been necessarily set up a series of very complicated relationships between the services, on the one hand, and the medical schools on the other. In this machinery there have been some of what I understand are referred to in engineering circles as "bugs," but many of these minute organisms have been eliminated, I think because the services, on the one hand, and the schools, on the other, have understood the problems and have appreciated the position of the other party. I think that is a tribute both to the services and the medical group.

There is, however, among these smaller forms of life one camel, the swallowing of which fills many of us with dismay because of the influence we believe it may have on the quality of service the medical schools can render to the Army and Navy, and that is this business of the allocation of men by number rather than by name.

Although I am bursting with eloquence on the subject, I do not propose to try to convince anyone of the importance of this matter. Colonel Fitts has suggested that he was already convinced of its importance but that he believed it to be administratively impossible of achievement. My plea is that, if it is as important as I believe it to be and as he believes it to be, we should not close the door to the possibility of solving that problem, as a great many other problems in this matter have been solved, by continued consultation and continued effort.

I believe it is vitally important to the quality of the medical service which is to be provided in the services, that the advantages of individual selection of medical students should be continued. I hope very much that the Association and the representatives of the services will continue to hammer away at this problem until the advantages of the method of individual selection have been retained by a solution to the administrative problems which are involved. I hope very much that the obviously great difficulties which are in the face of a good solution will not prevent a continued attack and the ultimate success of something that I believe is so important. If it is not so, if the disadvantages which all admit of the allocation of students on a numerical basis have to be accepted, then it will be, unhappily, necessary to accept one of two rather disagreeable alternatives.

Colonel Fitts and others have said this morning that it is the objective of the specialized training plans that the quality of medical education should be maintained. It was also the suggestion that it was undesirable for the scholastic mortality to be too high. However, if there is not adequate fitting of students to different schools, if there is not an adequate maintenance of the quality of people entering medical schools, how are we to avoid this difficult question: shall we lower standards or shall we increase scholastic mortality?

DR. A. C. CALLISTER (University of Utah Medical School): I would like to bring up the financial point of view. I am dean of a state university supported by the legislature. I assume there are other deans here that have the same difficulty. On the non-

resident fee basis, the Army and the Navy, under our contracts, pay us $565 per year per student for instructional purposes. The legislature appropriates an additional $840 per year per student.

The Navy has put us in serious difficulty in Utah. We have five colleges whose premedical students come to the University of Utah School of Medicine. That seems quite a few colleges for a comparatively small state, but I might add that we have the highest percentage of college graduates per population of any state in the Union. The Navy has not approved a single college in the State or Utah for V-12 training, and it puts us in the situation of having to draw, from the outside, up to our 25 per cent, men who are coming from other states. I do not know how the legislature is going to like that.

Another problem we are concerned about: We will have students that have had five quarters, two and one-half years, or three years of premedical training. They come from Army, Navy, or deferment by Selective Service. We all know the value of a certain amount of premedical training. It is going to be rather difficult for us to handle three groups with different degrees of training, in the same curriculum in medical instruction.

I also object to grading too closely in percentage. I have always been nettled by one man being rejected for a lower grade in attempting to set up the men we may pick from for medical school, by saying, "This man has 73.8 per cent and that man has 75.4 per cent" and accepting the latter. I do not believe anyone can grade so closely on any man's intelligence, ability or aptitude.

I am in the unfortunate position now of having schools outside of Utah whose grades we are unable to evaluate setting up the list, to a certain extent, of boys that we may consider for the University of Utah Medical School. Perhaps, the evaluation by the Deans of the Medical Schools in the screening process may help to correct this situation.

COMMANDER A. S. ADAMS (Washington, D. C.): May I answer Dean Burwell, please? Speaking only for the Navy, Dean, as I indicated, we do hope to have considerably more than a majority of individual choices honored, but, if it leads to the hard choice that you described, our position would be that, the attrition be what it will, the standards must be maintained.

With respect to the gentleman who I believe is from Utah, I should like to say, with respect to the Navy, that we were in an embarrassing position in so far as establishing V-12 units in the State of Utah was concerned, inasmuch as previous commitments with the Army had made it seem desirable to establish Army units at those schools.

It is certainly the thought that the students that would come to you would be of just as high grade as would be prepared in Utah, even though they come from other schools in the Twelfth Naval District. Further, it would certainly not be our thought that we should attempt to scrutinize each student with a microscope on his transcript and determine that one student was one-tenth of a per cent better qualified than another.

We hope, indeed I feel confident, that we have a sufficient supply of premedical students coming along so that, as I indicated, we may divide them into those whom you unquestionably would be happy to accept, in a qualitative sense, rather than in terms of a precise, numerical figure.

DR. L. R. CHANDLER (Stanford University Medical School): I would like to ask one question that concerns a small group that was not discussed by either one of the previous speakers. It is not a very large group but it may get larger. That is the group of premedical students now admitted to certain universities at the age of seventeen years. They will be completing their minimum required premedical work by the middle or latter part of 1944 and will then become eligible for military service on their eighteenth birthday. What technique of admission into medical school shall be applied to this small

group? On the whole, they are superior students. We have taken a small group of them at Stanford and several other universities are doing likewise. Shall we select them as civilians for admission to our freshman class? If so, what happens to them and their eligibility for V-12 or ASTP after they are admitted? Or shall we not consider them as eligible for our civilian quota? If these questions could be answered or some suggestions made now, we would appreciate it.

COLONEL FRANCIS M. FITTS: As far as the Army is concerned, I think there would be no doubt that that individual who was so thoroughly qualified would be selected by the ordinary procedures of screening. It is regrettable that he will not get to Stanford necessarily but, certainly, that is the group of which I spoke, which would appear at STAR units, after the completion of their basic military training. Certainly, that man has made 115 on his Army general classification test. He enters the Army. From the reception center he is sent for basic military training. He appears before an Army Specialized Training selection board, and is selected for training at the college level, and is sent to a STAR unit. At the STAR unit, that boy will be considered, together with the one under twenty-two who, unfortunately, was rejected by Stanford last year. It is up to the screening procedures, which are conducted with the assistance of the representative of the medical school at STAR, to see whether that is the man we want. It is a tremendously difficult task, but there will be screening at STAR just as there will be in term II. This lad is screened for medical training direct. He will require no additional premedical training. He would be screened direct.

DR. CHANDLER: Then it is your understanding that the universities would not consider these boys for selection on admission on their civilian quota? When they become eighteen, they will become eligible and be inducted and apply through the military channels.

COLONEL FITTS: If they are accepted against that 20 per cent, sir. I feel very, very strongly, and I think Commander Lapham will bear me out, that it is felt in so far as possible that 20 per cent of the vacancies should be reserved for women students and for those who do not meet the physical requirements. It should not be used as a means whereby a particular individual may be given preferential treatment and brought into the school this way—by the back door—and into the Army.

COMMANDER A. S. ADAMS: May I answer Dr. Chandler's question. Paragraph 4 of Bulletin 98, I think, covers the group in whom you are interested:

"Qualified civilians who are in attendance at or accepted for the next convening class of an approved medical or accredited dental school and who wish to be ordered to active duty in the Navy V-12 program should, if seventeen years of age, apply for enlistment as apprentice seaman, Class V-12(S) or, if between the ages of eighteen and thirty, apply for induction as apprentice seaman Class S-V12(S).

"If there is an appreciable lapse of time between completion of premedical or predental work and beginning of medical or dental school, students selected for medical and dental training will be placed on active duty under instruction, in naval hospitals or in other naval activities as apprentice seamen during the interim."

That means, then, that the individual simply makes application on the basis of the acceptance which you have granted him. Again, although we cannot positively guarantee that he will go to Stanford, it is my considered opinion that, in the great majority of instances, he will do so.

DR. CHANDLER: Thank you very much, Commander. I suppose I should have read that directive but between the Army and the Navy and Procurement and Assignment directives, some of us are a little bit behind.

DR. H. G. WEISKOTTEN (Syracuse University Medical School): What should be the attitude of the medical school and what is the attitude of the Navy in regard to a student

in the V-1 program who had been accepted by a medical school but is refused transfer from the V-1 to the V-12 program?

COMMANDER ADAMS: I take it that because of physical disability he was not so transferred.

DR. WEISKOTTEN: No.

COMMANDER ADAMS: What was the reason?

DR. WEISKOTTEN: Reason not given.

COMMANDER ADAMS: I will have to answer, I just do not know.

DR. WEISKOTTEN: The reason perhaps was "officer quality," on the basis of an interview.

COMMANDER ADAMS: That individual should then have been discharged and should then come under the provisions of Selective Service, and you go ahead and take him as a civilian.

DRS WEISKOTTEN: He was not discharged. He is in V-1 on inactive duty, completing his premedical medical work.

COMMANDER ADAMS: Would you be so good, sir, as to write a letter to the Chief of Navy Personnel?

DR. WEISKOTTEN: I have written to the district office.

COMMANDER ADAMS: That, I must confess—do not you call him, in biology, a "sport"? (Laughter)

DR. H. S. DIEHL (University of Minnesota School of Medicine, Minneapolis, Minn.): I just want to ask a question. I would like to ask about the follow-up of Dean Chandler's question, about the student who is seventeen, who has been accepted for college. He has taken one or two terms of college work. He has no acceptance to medical school. He wishes to get into the V-12 program. If he desires the Army, I think Colonel Fitts has told us how he proceeds. He waits until he is inducted.

If he wishes to get into the V-12 program, how does that student proceed? He has not yet been accepted for medical school, has a good college record and maybe one or two terms of college work.

COMMANDER ADAMS: He will take the next qualifying examination, which is to be given on November 9, and he must make an outstanding record in that examination in order to be considered for premedical work. He must also impress the interview group at the Office of Naval Officer Procurement with the sincerity of his motive for wishing to undertake medical instruction.

With the satisfaction of all those requirements, he then would be taken into the program as a premedical student.

DR. WM. PEPPER (University of Pennsylvania Medical School): I would like to ask Commander Hogan a question. After my experience as a consultant in our local naval districts, where there are five schools, we have had three meetings of the five deans. We first considered the applications from the 48 V-12 boys who complete their work this month. All we were able to do was to say that one group was all right and we did not think the other group was. When we talked of trying to group them into A, B and C, we found we could not do it. They come from various colleges and have different marking systems. The letters of recommendation seemed to us to be much more laudatory than they used to be, because they were simply addressed "To Whom It May Concern" and these college professors thought, "This boy may go to one of a great number of schools. I guess he is good enough for some of them. I will write and say he is all right." I want to know what becomes of those boys that we said were all right, who finish this month, there being no vacancies, except very few, maybe ten or twelve in the October class of one or two of the schools. Three of the schools are filled. One had, I think, two vacancies; another one had ten. We have approved twenty boys. So, their first opportunity will be to get into a July, 1945, class. What will happen to

them in the meantime? We do not know how many more will come along in subsequent groups. Maybe the data you furnished us will be of some help. The questionnaire that these boys filled out led to confusion, where it asked for their preference. Some of them thought it meant by states, and answered Michigan, Illinois and Indiana, or some of them thought it was schools and said Tulane, Yale and California, and some of them limited their choice to the three schools in our naval district. Commander Lamb then wrote to them and said they must express preference for three medical schools in the naval district in which they are located. Is that correct?

COMMANDER A. S. ADAMS: That is right. In respect to the question as to what happens to them, I can't answer that until we find out just what that excess number is and, also, we must find out how many vacancies are in prospect within a reasonable number of months, because, as you will realize, it is not feasible to continue a large number of people in interim training. That would be decidedly wasteful of manpower. So, it is for that reason we ask for some kind of a relative grouping, in order that we may determine those whom you think best fitted for medical education. For these few vacancies that will develop in the next month or so, we will try to find candidates for them.

You are quite correct in your thought that they should have indicated preferences for the medical schools in that naval district.

DR. ROLF C. SYVERTSEN (Dartmouth Medical School): The remark Dr. Hogan made raises a serious question with respect to the First Naval District. The assumption that the man should apply for admission to medical schools in the naval district in which he happens now to be assigned for training results that, in the First Naval District, at least in one school with which I am acquainted, there are men so to apply who have taken by far the larger part of their premedical training in 109 colleges and universities, most of them outside of the First Naval District. Many would not logically apply for admission to any of the medical schools in the First Naval District. There are 92 places in medical schools in the First Naval District under Navy contract, and there are some eight or nine hundred Navy premedical students in the First Naval District. If they are all expected to apply for admission to medical schools in the First Naval District, they will be doing a most unnatural thing because many of them live in the Middle West and, logically, expect to go to a medical school in the Middle West. It will also force a preponderantly large group of men to apply for admission to a medical school in a naval district in which there are a relatively small number of opportunities for these men to be admitted to medical education. I am wondering if that represents a problem which exists in any one of the other naval districts.

COMMANDER A. S. ADAMS: I think we need carefully to differentiate between two types of students: first, those to whom you granted acceptances prior to July 1st; those who were former V-1 and V-7 students and regardless of their present location or the location of the medical school which they wish to attend. All of those acceptances are and mean to be confirmed. There will be no change in that. As to the second group, may I focus attention on the fact that it is only in respect to a relatively small number of people at this time that we have any concern.

In the future, it is quite true that there will be more premedical students qualified in the undergraduate institutions of the First Naval District than there will be vacancies in medical schools to accommodate them.

It was our hope that the arrangements for reciprocity might make it possible to obtain from those individuals sufficient qualified applicants to fill the medical schools in the Third and Fourth Districts and District of Columbia medical schools.

Does that take care of the situation?

DR. SYVERTSEN: The question was, in our session of deans, we have the problem

of this large group of men who have been variously instructed, as to whether they might apply in the First Naval District or home naval district, or might apply anywhere.

We have applications being processed that have been filed on all three different assumptions.

COMMANDER ADAMS: These are subsequent to July 1st?

DR. SYVERTSEN: Yes.

COMMANDER ADAMS: And how many are there, may I ask?

DR. SYVERTSEN: In the institution where I am there are between 150 and 200.

COMMANDER ADAMS: There aren't that many who have finished their premedical education?

DR. SYVERTSEN: There are that many finishing their premedical education before October, 1944.

COMMANDER ADAMS: In respect to that group, we will consider those at our later meetings of the district committees. As you indicate, under normal circumstances they, perhaps, would not have gone to medical schools in the First Naval District, but by that time they will have been in Dartmouth, let us say, for at least an academic year, and you will be able to evaluate them in relation to the medical schools of the First Naval District. Is that not correct, sir?

DR. SYVERTSEN: That is correct. The point I had in mind was whether these men, from the morale angle, have been very much disappointed because of the fact that they, coming, for instance, from the Chicago district, were going to be required to go to medical school, if they go at all to a medical school, in the First Naval District.

COMMANDER ADAMS: I think it is entirely likely that they may go to the Third or Fourth or, conceivably, they might still go to the Ninth, because you have an excess of people in the First Naval District. It is the reciprocity agreement upon which, I think, we must depend to satisfactorily solve that situation.

DR. ARTHUR KNUDSON (Albany Medical College): Medical schools have accepted students for January and October, 1944. We have, for example, at Albany ten or twelve students in each of those groups that are under Selective Service. Should we advise those students, when they are ready to enter mdical school, to go into either the Army or the Navy?

COLONEL FITTS: As far as that group is concerned, we are not limiting in 1944 our percentage. If those men are bona fide students and if they enter the military service, we are selecting them to be trained in their own vacancies. I would urge that they do not delay until just prior to entering medical school or until after they have entered medical school, because the time lost at a reception center and being processed will be such that it will interfere with their academic progress. I would suggest that upon the completion of their premedical training they then enter the service. It will mean they will have sufficient time to receive some basic military training before going to the unit. They will not arrive there in civilian clothes, get into military clothes and not be a soldier but just a civilian in uniform. So, if there are any of that group, I urge that they go into the Army as early as possible. I think in the majority of instances we are not making any special provision, such as Commander Adams, I believe, will tell you is being done by the Navy, whereby he will be assured of being assigned to the Army. At the joint induction station, if the demand there is for the Navy, then that individual may go into the Navy or the Marines. Normally, I think, the majority of the percentage are now being sent to the Army rather than to the Navy. May I urge that he have in his possession a copy of the letter of acceptance and a statement to the effect that he has completed all of his premedical training.

DR. KNUDSON: The only point I wish to bring out is, provided he finishes his premedical training in December and the school starts in January, he would not have time to get any military training. What should be done?

COLONEL FITTS: Accepted for January?

DR. KNUDSON: Yes.

COLONEL FITTS: I think it would be much better for him to go in just as soon as he completes his premedical work, rather than lose time from school itself.

DR. KNUDSON: Would he be sent back to Albany or just take a chance?

COLONEL FITTS: No, sir, we still have instructions that a bona fide student that enters the Army through induction, who has an acceptance for 1944 will be assigned to the unit at that school in time to start training in the class for which he has been accepted.

DR. D. BAILEY CALVIN (University of Texas School of Medicine): There is still a group we are having some difficulty about, men in the service, especially the Army, who have not gone through the STAR units, for one reason or another, men who have completed premedical requirements in many cases and who are asking permission to apply for acceptance to medical schools, for a Class A-1 July, 1944, for which the quota will not apply. What should we do, turn them down or refer them to their commanding officer?

COLONEL FITTS: If amongst that group you find God's gift to the nation and the man you want, accept him, but do not allow yourself to be swamped, as they have been. I think some one told me that one man even had his application form printed and was circulating it to all schools. Amongst that group there are men who have had various degrees of premedical training and who are saying, "My commanding officer tells me if I get an acceptance, the government will train me." If you find someone you want, then give him the letter of acceptance, send him the necessary things, let him present that, and we will get him to you at the proper time. But do not feel that you are helping out by taking every Tom, Dick and Harry who is in the Army and wants to be a doctor.

DR. CALVIN: We do not wish to encourage them to send us complete application files, there is the trouble, and we don't know whether a man is worth taking until we have a file from him. It makes it quite difficult to handle all of those.

COLONEL FITTS: They are eligible, sir.

MR. W. C. MACTAVISH (Washington Square College, New York University): May I call your attention to a situation which has developed in the last three or four months? There are in the Army many enlisted men who had completed all or part of the premedical requirements some time prior to enlistment; they have been informed by their commanding officers that they are eligible for the study of medicine provided they can secure acceptance from a medical school. I have received a number of letters from men in service requesting that transcripts of their premedical record be sent to various medical schools. This imposes an additional burden on the medical schools because in most of these cases the soldiers' college work was taken some years ago (as early as 1934); also, in many cases, the scholastic record was low. It seems unwise to encourage these men to believe that they can gain admission to a medical school when there is little or no possibility of their acceptance. It appears to me inadvisable for officers to encourage application for admission to medical school without some consideration of the quality of the prospective applicant's premedical work. Perhaps something could be done to stop this practice. I have had very few similar requests from men who had good premedical records.

COLONEL FRANCIS M. FITTS: I do not see any solution. Of course, back in May, when we realized that the vacancies in 1943, in the first part of 1944, were practically all filled, we put out a directive, restricting training in medicine under the Army Specialized Training Program and preparation for such training to those who have acceptances. Unfortunately, at that time I did not say a future entering class, and they thought the men who had been accepted back in 1933 were qualified. But we restricted it to that group. It is perfectly natural that the Commanding Officer, who has a rather

paternalistic attitude regarding his soldiers, thinks "This man would make a good doctor" and tells him. I myself have told individuals, "Now, if you are accepted, we will honor the commitment that the school has made to you." I think that the majority of the 1944 classes are filled, and that in most of your instances you can send back answers of "Standing room only." But that is bound to happen. The ambitious individual is going to want to go to school, or some of them that want to escape other types of work.

DR. CARLYLE F. JACOBSEN* (Washington University School of Medicine): At Washington we adopted last January the plan of sending a preliminary application, a simple mimeographed page on which the man could list, on his own authority, the courses he has taken, the kind of work he has done. We are still following that plan. We have about twenty applications coming in every day. Of that twenty, we rarely send out in more than two instances the full application blank. It takes maybe five minutes of the secretary's time to look it over and see whether we even want to examine it in the committee. I think it will take care of the problem.

DR. J. S. RODMAN (National Board of Medical Examiners, Philadelphia, Pa.): It is generally understood, I believe, that one-third of the interns will be further deferred for resident training and that, of that number, one-half will be further deferred for nine months' further internship.

MAJOR GENERAL LULL: That deferment will not be entirely in the hands of the Surgeon General. Application will be made to Procurement and Assignment Service for the deferment of these individuals. If they approve them, we will then defer up to one-third.

PRESIDENT-ELECT MACEWEN: Does that apply to the Navy, Commander Adams?

COMMANDER ADAMS: Yes, sir, that applies.

COLONEL FRANCIS M. FITTS: There is no closing discussion, except to thank you from the very bottom of my heart for the wonderful reception you have always given us of the Army and, again, our assurance of trying to put this thing over with the least disruption of existing conditions and of medical education.

COMMANDER A. S. ADAMS (Washington, D. C.): There is just one thing I would like to add and that is, perhaps, an expression of the points of philosophy upon which the whole V-12 program is based. The first point is maximum conservation of every value that we have known in the past in higher education and in professional education. The second is minimum disruption of the procedures that you have found to be effective. The third is that no institution is to be penalized financially. Dean Callister, I am confident in your particular case there will be no penalty. The Navy will see to it that no institution loses money.

The fourth is—and this is a peculiar responsibility of my own—to try to see to it that you get full information at the earliest possible moment. I do not doubt that you feel that the earliest possible moment is not very early. But, at any rate, I am sure you realize we are anxious to see to it that no point of policy is enunciated which will not stand up continuously and consistently.

Therefore, we do take, sometimes, what must seem to you to be an unconscionable amount of time in order to get the word out. Those four principles are the principles under which we are acting.

As I said before, I count it a great privilege to be here, and I hope that the V-12 program will move forward as it has given every indication of doing.

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* (Stenographic report; not revised.)

The Financial Aspects of Medical Education in the War Program*

WILLARD C. RAPPLEYE
Chairman, Executive Council, Association of American Medical Colleges
New York, N. Y.

In response to the request from the Navy Department that the Association advise it relative to costs of medical instruction, the Executive Council authorized its Chairman to collect data on the financial features of the medical schools and to confer with the Navy Department. It was felt, also, that the figures should be secured for our own information and possible use in other deliberations. The last study of this character made by the Association was in 1927.

The Council is grateful to all of you for your cooperation and help. We realized before the questionnaire was sent out how elusive the problem is, how greatly conditions vary in different schools, how difficult it is in any situation to obtain other than approximate values for numerous items. Yet it seemed desirable that an effort be made to secure some kind of an over all estimate of the cost of medical school operation and income, particularly in relation to the war program. The data assembled from 67 medical schools have served as a base for certain estimates which have been given to the Navy Department which, in turn, has forwarded them to the Joint Army Navy Board with grateful appreciation of our help.

The first effort was to secure an estimate of the cost of instruction per student. Only a direct study of each institution could answer that question with accuracy. That was impossible, of course. From the reports of the 67 schools, however, an approximate figure of the direct expenditures for operation was possible. As you know, some schools gave us only the total budget but others gave sufficient detail to allow reasonable sampling of the essential features for an estimate. For purposes of comparison no allowances were included for general university overhead, depreciation of physical plant and equipment and other items of this character.

The average gross cost per medical student of the 67 schools reporting is $1,249 for an academic year. The range of direct cost is from $301 to about $3,900. In the several lowest figures special situations pertain. In those institutions where the costs are high, the figure covers larger expenditures for research, higher compensation for the staff, full time salaries in clinical divisions and other features of more elaborate programs. The average nonresident tuition is $474 per academic year.

Based on the data supplied, the total direct cost of operating the 76 schools is estimated at $26,702,000. The income from student fees in those same institutions during the last year preceding the war amounted to approximately $8,551,-

* Read at the Fifty-fourth Annual Meeting of the Association of American Medical Colleges held in Cleveland, Ohio, October 25-27, 1943.

600 on the basis of regular tuition rates. The deficit of operations totalled about $18,000,000, exclusive of overhead, depreciation and similar considerations.

The cost of operation of the medical schools has been increased by the War Program largely because of the accelerated program of instruction. Based on the figures which we have from the 67 schools it is our estimate that for all of the medical schools the expenditures for supplies have increased about $267,000 net. In a number of medical schools the supply items for instructional purposes have increased considerably but have been offset, in large part, by reductions in the supply items used for research, owing to curtailments in the research programs.

Another item which is increasing the cost of operation of the medical schools is the supplementary salaries paid to the members of the instructional, clerical and technical staffs necessitated by the additional work placed on the personnel. Slightly more than one-half of the medical schools have increased the compensation of their staffs on an average of approximately 20 per cent. The increase in salaries necessitated by the accelerated program has been largely in the schools with smaller staffs and budgets. Many of the institutions with large budgets have not increased the compensation of their staffs. Based on the figures that we have, it is our estimate that the total increased cost of operation of the 76 schools from this source is about $1,600,000. This figure represents an increase in salary items only and has been arrived at after making allowance for savings in some of the schools of salaries of members of the staff who are now in active military service and whose positions have not been filled. In some of the larger schools, this sum is fairly large, but in the great majority of institutions the money so saved has been used for replacements. If all schools were to increase compensation at the rate of approximately 20 per cent, the total cost of salaries in the schools would be increased by about $4,272,000 per year.

Summarizing, the increased cost of operation of the medical schools is at present roughly:

Increase in supplies	$ 267,000
Increase in salaries (one-half of the schools)	1,600,000
Total	$1,867,000

The income of the medical schools derived from student tuition under the accelerated program is being increased from three important sources:

(a) Increased number of students in attendance.

(b) Payment of nonresident tuition for all students covered by government contracts with medical schools.

(c) The twelve months operation.

(a) The student enrollment of the medical schools has been increased about 5 per cent, due to the admission of about 10 per cent more students than normal in the first year classes during the last two years. The additional income as a result of the increased enrollment amounts to about $427,600 per school year. When the increased enrollment is felt in all four classes, the income of the schools by virtue of the higher attendance will be increased by about $855,000.

(b) About 30 medical schools have had a nonresident tuition fee for students from outside the state. In practically all of those schools both resident and nonresident students have been enrolled. On the basis of the enrollment of resident students in those institutions which now under government contract will be placed on a nonresident tuition basis to the extent of approximately 80 per cent of the capacity of the schools, it is estimated that the added income from payment of the nonresident tuition fee will be roughly $955,500 per academic year.

(c) Under the accelerated program each medical school will receive one-third more tuition per calendar year than previously. Based on the figures collected, it is our estimate that for all 76 schools the total increase would be $3,311,500.

Summarzing, the increased income derived from student tuition for the accelerated program per calendar year is, currently, as follows:

Increase due to larger enrollment	$ 427,600
Increase due to payment of nonresident fees	955,500
Increase due to accelerated program	3,311,500
	$4,694,600

The amount of income from endowments given specifically for medical instruction or the portion of the endowments of the university allocated for medical instruction and research varies greatly among the institutions. Only a few medical schools have large endowment funds given specifically for medical teaching and research. No generalization or estimate on this question would seem to be valid for all the medical schools. The large majority of the schools have practically no endowment or rely on the general endowment income of the university, except those institutions which obtain state or municipal appropriations to balance their budgets.

Income from outside sources, such as laboratory charges, is not a large item in the over all picture. A few medical schools derive a moderate amount of income from such sources but the total is negligible in the aggregate.

On the basis of the estimates given above, it would seem fair to state that for the next calendar year the cost of operating the medical schools will rise about $1,800,000 above normal and that the income from student sources will increase by approximately $4,695,000. If more schools increase the compensation of their staffs, the total cost of operation will, of course, rise. The income will not go up much as far as can be foreseen. We have not concerned ourselves with the possible changes in income from endowment funds, or state appropriations nor with the financial problems of the universities of which many of our schools are a part since those inquiries were not suggested in our assignment.

Effects to Date of the Wartime Program of Medical Education*

WILLARD C. RAPPLEYE

Chairman, Executive Council, Association of American Medical Colleges
New York, N. Y.

A major responsibility of the medical schools and of this Association is the maintenance of standards of medical training under the conditions imposed by the war. That purpose is not only directed to the production of competent medical officers for the military services but equally to the preparation of physicians for the civilian needs and for the postwar era. It is important, therefore, that the Association exercise viligant scrutiny and make periodic checks of the effects which war time adjustments have upon the maintenance of proper standards of medical education.

The Executive Council appreciates the prompt and helpful response to our recent inquiry, the results of which may be briefly summarized. The first item is a review of the Army and Navy programs. In the seventy-two schools which have reported, the medical trainees are in barracks in ten schools. Of these the trainees of the third and fourth years are in barracks in four schools and for the two first years in one of these four year schools and in five of the schools of the medical sciences which give only the first two years of instruction. Institutional feeding is provided for the Army trainees in twelve instances. The Navy trainees are on commutation of rations and quarters in all schools except one where a special situation exists.

The number of hours per week devoted to various military activities is as follows:

Hours per week Army trainees devote to:

(a) Drill and Calisthenics		(b) Lectures		Total	
0 hours	8	0 hours	13	0 hours	2
1 hour	19	1 hour	33	1 hour	7
2 hours	20	2 hours	15	2 hours	18
3 hours	9	3 hours	5	3 hours	14
4 hours	10	4 hours	3	4 hours	10
5 hours	4	5 hours	2	5 hours	14
6 hours	2			6 hours	3
				7 hours	3
				8 hours	1

* Read at the Fifty-fourth Annual Meeting of the Association of American Medical Colleges held in Cleveland, Ohio, October 25-27, 1943.

Hours per week Navy trainees devote to:

(a) Drill and Calisthenics		(b) Lectures		Total	
0 hours	46	0 hours	35	0 hours	28
1 hour	16	1 hour	32	1 hour	21
2 hours	7	2 hours	2	2 hours	17
3 hours	1	5 hours	1	3 hours	2
				4 hours	1
				7 hours	1

To the question "Do the military exercises interfere with the full performance of academic duties?" six institutions replied in the affirmative for the Army schedules. The interference is entirely in those schools in which the Army has a relatively large number of drills per week and in schools where the trainees are in barracks. It seems apparent that in a few places the military requirements interfere with the educational program which must remain the primary objective. In many schools earlier there were momentary dangers of serious handicaps when local commandants felt obliged to follow strictly the regulations of the Army Specialized Training Program outlined for college trainees. The splendid cooperation of Army officers in the service commands and the understanding interpretation of the educational needs by the authorities in Washington have led to a plan which is generally satisfactory to the present medical students and to the schools except in a few isolated instances which probably will be corrected. The Navy program with its light military schedules and commutation of quarters and rations for all trainees presents no important adverse comments. It is most gratifying to report from many sources on the splendid cooperation of the Army and Navy officers assigned to the medical training units.

The problems of maintaining sufficient staffs to carry on the instruction are familiar to all of you. To our question on this point, nineteen of the seventy-two schools report that their staffs are now below the number necessary to provide reasonably satisfactory instruction. Many of the remaining 53 schools report that they are at their minimum and any further withdrawals for military duty or by retirement or death will mean inability to maintain their programs. A number comment that the staffs are greatly overworked and can not be expected to continue indefinitely at the present tempo.

In answer to the crucial question of standards of academic performance about one fourth of the schools report that the standards are not being maintained. It is clear from the replies that the military features of the training programs are not responsible for the deterioration. In fact, a number of deans suggest some improvement in academic effort and student morale as results of the students being in uniform and free from the necessity of many to help support themselves by outside work.

The drop in performance is ascribed almost entirely to the severe reduction in teaching staffs and secondarily to the accelerated program. Many schools report that about one third of their most active and able teachers have gone into

service. Upon those remaining has fallen the tasks of carrying the instructional load and the care of patients in the wards of the teaching hospitals which on a normal academic year would be a heavy burden. But the accelerated program which requires instruction throughout the calendar year places a demand upon the staffs in the schools which can be met only for a limited time.

The academic work of the trainees has suffered because of the necessary reduction in instructional guidance and help from the depleted staffs. A number of medical teachers and some of our reports agree that the character of the instruction is changing because of the overworked staffs. Increasingly the teaching in some subjects and in certain schools is becoming of necessity didactic and hurried. The use of the library by trainees is dropping in many places. Students no longer have time for electives, especially in the summer recesses, to do extra work in the laboratories and clinics which were of great value in elevating the quality of professional training not only for the students participating directly but also for those in the regular sections which were usually reduced in number through the elective system. Students do not have sufficient time for reflection and for proper assimilation of the mass of knowledge encompassed by the medical curriculum which now includes many new items of recent origin or related to the war problems of medicine. Even for the best students the schedule is hard, for the less able the academic achievement is falling in a goodly number of schools.

The danger signal of a breakdown in scholastic standards is flying. This is disquieting to say the least and augurs badly for even the near future as the fatigue and overwork of staffs increase with consequent further relaxation in their teaching performance. The possibility of a serious situation in medical education shortly must be borne in mind.

From the data and comments obtained from our inquiry to all medical schools it seems fair to conclude that:

1. Any further depletion of the instructional staffs of the medical schools will result in a serious breakdown of standards of medical training. Already there is definite deterioration in one fourth of the medical schools.

2. The qualifications and educational preparation of trainees selected and assigned to the medical schools in the future must be kept high if even reasonable standards of academic performance are to be maintained under war conditions.

3. If the present trend continues, consideration may have to be given to a modification of the accelerated program or some assurance for the continuation of adequate instructional staffs in order to maintain the proper instruction of medical officers for the Army and Navy and of physicians for the civilian needs of the future.

JOURNAL
OF THE
Association *of* American Medical Colleges

Volume 19 JANUARY, 1944 Number 1

Membership in the Association of American Medical Colleges

The membership of the Association of American Medical Colleges consists of medical colleges. Medical Colleges embrace a faculty, buildings, equipment, apparatus of all kinds, an administrative group and what not. Since it is manifestly impossible for anything inanimate to hold membership in any organization, it goes without saying that in the case of medical colleges the faculty is the part of the college which can hold membership. Many, if not all, faculty members hold membership in one or more societies connected with their specialty or profession—either the practice of medicine or one or more of the basic science subjects taught in medical schools. But, since they are also teachers, is it not important that they hold membership in the appropriate teaching organization or society? Such a membership is given to them, without charge or dues, by the fact that their medical school holds membership in the Association of American Medical Colleges. Furthermore, they receive, free, the JOURNAL of the Association, the only publication in the world devoted entirely to medical education and teaching. It presents the trends in medical education; what is happening at the moment; what may happen in the near future; how teaching is changing; everything that is going on in the field of medical education and teaching. Nowhere else can this be found. Is it not worthy of the support of every faculty member? It is *his* association. It is not the dean's association. He merely represents his faculty at the annual meetings as he does at home. He is the faculty spokesman. It is not uncommon for a medical school to be represented by two, three, four and even five members of the faculty at the annual meetings of the Association. Every faculty member has a right to attend and to speak on any and all subjects which may arise. But every member college has only one vote on questions at issue. That vote may be cast by any member of the faculty chosen by his college. In the absence of any other official representative, the dean is automatically the representative—as he is at home.

The main points at issue are: (1) This is not a deans' association; (2) every member of the faculty is a member; (3) the faculty has not taken an active interest in the Association; (4) every faculty member should keep abreast of changes in trends in medical education, in teaching methods by reading the official JOURNAL of the Association. Faculty Members: This is *your* Association. If it is not what you think it should be, it is wholly your fault, not the dean's, not the fault of the officers of the Association. JUST YOUR FAULT.

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Industrial Medicine

At several annual meetings of the Association of American Medical Colleges the teaching of industrial medicine has been featured. Thus far, very little has been done about it by medical schools. A recent editorial written by Dr. Rutherford B. Johnstone of Los Angeles, which was published in *Industrial Medicine*, presents the picture admirably. Dr. Johnstone says, in part:

"It is disappointing to contemplate that this group who care for the health of the largest segment of our population represent a phase of medicine not recognized by the medical school curriculum. How paradoxical! During the years that organized medicine and the medical schools ignored industrial medicine, industry found it to be indispensable. Today, in

order to maintain production for the war effort, industry is crying for trained industrial physicians. After this global debacle the demand will be even greater. From whence is the supply to come? Today the urgency for the industrial physician is immediate. Industry does not intend to furnish the entire education, but rather expects the physician to have a fundamental knowledge of the problems. That the demand cannot be met is an indictment against medical education.

"It should be obvious that medical education needs to cut out some dead timber in its structure, or at least shorten some of its stays. Our colleges and universities constantly change their courses to conform to the requisites of the generation they serve. Logic, taught our grandparents, has been dispensed with in today's courses, nor is calculus imposed upon all who seek a degree. Individual abilities are recognized and the student is encouraged to satisfy his inclinations.

"Not so with medical education. Each potential physician is required to take the same course and spend the identical hours on each course that his classmate does, regardless of individual aptitudes. He who intends to become a general practitioner or a pediatrician must struggle with the same subjects for the same length of time as one who aspires to scientific research. There is no opportunity to 'major.' Fully 75% of all those who spend many hours smoking drums or goosing frog muscle in physiology could learn all they need to know from a short didactic course. Other examples of too extended courses could be cited.

"It is not contended that all medical educators fail to appreciate the utility of industrial medicine instruction, but too many of them cannot see 'how the curriculum can be expanded,' or else they are planning such a course 'some time in the future,' or 'after the war.' Why the dilly-dallying, professor? There is need for action now."

It is true that the medical curriculum is overcrowded and that, at the moment, at least, it cannot be expanded in time, but medical educators are aware of the need for constant revision of the curriculum from the standpoint of eliminating nonessentials, emphasizing fundamentals, compelling the student to do more than "sit and listen." He is expected to carry the major part of the load of getting educated in medicine. By giving him more free time, he is encouraged to read, to browse in the literature, to meditate, to think and thus learn to know rather than to memorize. Many ancillary subjects not named specifically in the curriculum are being taught—or, rather, broached—but that is a beginning of what must be done eventually by all medical schools. Too often, however, there is not available on the faculty a man with sufficient experience in a given field to even initiate teaching in that field. That is true, in the main, of industrial medicine. The men who are active as specialists in this field are not often available for teaching. Then, too, it is not the function of the medical school to turn out specialists, even in embryo, but it can help in this direction by directing attention to certain fields and, perhaps, arouse an interest in some students to the end that they will, after graduation, prepare themselves by further study to become specialists—even in industrial medicine.

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Memorandum Regarding Minimum Educational Facilities Necessary for the Postgraduate Education of Those Seeking Careers in Public Health•

In view of the confusion which exists regarding facilities necessary for the proper education of professional public health personnel it seems timely for the Committee on Professional Education to state its present opinion. For the benefit of appointing bodies, teaching institutions, and candidates for a professional career in public health, the committee here sets forth what it believes to be the minimum facilities necessary for the adequate training of professional workers. It is subject to change and elaboration as experience accumulates.

I

Since public health itself is a specialty, all professional service in public health requires special education over and above the training inherent in the profession from which the candidate comes. For example: a physician entering the field of public health, already fully trained in clinical medicine, must also acquire competence in public health ad-

ministration, epidemiology, vital statistics, community organization, etc.

II

To their great credit many present and past public health leaders obtained their training largely by experience. We recognize their attainments and acknowledge our indebtedness for their pioneer accomplishments. Nevertheless, (a) with today's rapidly accumulating knowledge, (b) with the increased legal, social, and economic responsibilities of the public health profession, and (c) with the development of many superior teaching institutions, we believe special professional training in public health is best obtained at a well equipped teaching institution. Such training should be at the graduate level, that is, after earning the professional degree.

III

Special professional training for a public health career should include:

1. Skilled, organized, well integrated instruction, including laboratory exercises, under a variety of teachers who are recognized leaders in their respective fields, including a central group of those who devote full time to the teaching of public health.

2. Supervised field observation and experience in one or more well organized official or voluntary health agencies.

IV

1. There is great advantage in obtaining this special training in a teaching institution having immediate access to and cooperative assistance from the faculties of schools of the medical and biological sciences, engineering, education, social and political science, economics and business administration. While not all professional public health personnel need full competence in all these broad fields, some will need considerable familiarity with several of them.

2. It is essential that the institution essaying to train professional public health personnel at the graduate level have a good library for reference work and ample laboratory facilities where students may have adequate space and apparatus to develop skills in such fields as bacteriology, engineering, statistics, and the like.

3. It is likewise essential that such an institution have access to well organized health departments and voluntary health agencies which are willing to assist the school by providing facilities for supervised field training and experience. The performance standards of these agencies should be satisfactory to the school and their procedures familiar enough to the school so that its teaching methods may be correlated with the student's observation.

4. There is considerable advantage in having all necessary facilities for training all types of professional public health personnel in the same institution so that they may participate together in certain basic courses.

American Public Health Association.
Committee on Professional Education.

W. P. Shepard, M.D., Chairman.
Reginald M. Atwater, M.D., Secretary.
Edward S. Godfrey, Jr., M.D.
John E. Gordon, M.D.
Ira V. Hiscock, Sc.D.
Pearl McIver, R.N.
George H. Ramsey, M.D.
Lowell J. Reed, Ph.D.
Wilson G. Smillie, M.D.
Ralph E. Tarbett, C.E.
Henry F. Vaughan, Dr. P.H.

* Adopted by the Committee on Professional Education of the American Public Health Association, April 17, 1942.

Reprinted from American Journal of Public Health, Vol. 32, No. 5, May, 1942.

College News

University of Pennsylvania
School of Medicine

The Frank Wister Thomas Professorship of Medicine is to be established under the will of Mrs. Maria G. B. Thomas of Philadelphia. The professorship will be a memorial to Mrs. Thomas's husband, Dr. Frank W. Thomas, who died on Jan. 19, 1928. According to the will, most of the $200,000 estate is left ultimately to create the new chair. The residue is bequeathed to the university toward the endowment, and trust funds amounting to $50,000 will be added to it as the beneficiaries die, until $200,000 is accumulated. The holder of the professorship shall be the person who is recognized by the trustees as the head or chief professor of medicine at the medical school. If the endowment exceeds the amount necessary to establish the professorship, or if the chair becomes temporarily vacant, one or more temporary Frank Wister Thomas fellowships in medicine are to be set up. Any excess over the $200,000 limit fixed for the professorship is bequeathed to Germantown Dispensary and Hospital.

At the request of the Surgeon General of the United States Army, the University of Pennsylvania has given a series of thirty-two courses to nearly 500 medical and dental officers of the Army during the past twelve months, it was revealed yesterday by President Thomas S. Gates. The courses were offered under the administrative supervision of the Graduate School of Medicine of the University. To conduct the courses a group of 124 faculty members was formed from Hahnemann Medical College, Jefferson Medical College, the School of Medicine of Temple University, and the Graduate School of Medicine, the School of Medicine and the Evans Dental Institute of the University of Pennsylvania. To this group were added the surgeons of the hospitals of these medical schools, as well as the Lankenau, Methodist, Oncologic, Pennsylvania, Philadelphia General, Presbyterian, and Samaritan Hospitals and the Evans Dental Institute.

The fundamentals of basic surgery, surgery of the extremities and of the thorax, plastic and maxillofacial surgery, together with anesthesiology, bacteriology and clinical pathology, were covered in the courses. Most were of six weeks' duration, but twelve weeks were devoted to anesthesiology and clinical pathology. All officers spent their first two weeks in the study of basic and fundamental surgery and the last four weeks in one of the special fields to which they had been assigned by the Surgeon General.

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University of Texas
School of Medicine

Dr. Jack Ewalt, associate professor of neuropsychiatry and Director of the electroencephalography unit of the John Sealy Hospital, has been appointed acting director of the Galveston State Psychopathic Hospital. This important adjunct to medical teaching was closed in the summer by the State Board of Control on the basis that the buildings housing its operating staff had suffered storm damage.

George A. Emerson, Ph.D., associate professor of pharmacology at West Virginia University Medical School, has been appointed professor of pharmacology. He anticipates continuing his research studies in chemotherapy, the effects of anaesthetic agents, and the effects of drugs in anoxia.

Robert I. Wise, Ph.D., director of the public health laboratory, Houston, has been appointed assistant professor of bacteriology. Glenn Drager, Ph.D., of the department of anatomy, West Virginia University School of Medicine, was appointed assistant professor of anatomy.

Charles M. Pomerat, Ph.D., professor of biology in the University of Alabama,

has accepted appointment to a professorship in anatomy.

R. W. Strandtmann from the Ohio State University is now assistant professor of entomology in the Department of Preventive Medicine and Public Health.

Ardell N. Taylor, Ph.D., formerly with the University of Texas at Austin, is instructor in physiology.

Dr. Jewell G. Hamrick, of the Medical College of Virginia, became instructor in pathology at Texas.

Dr. George Herrmann, professor of medicine, will be in Mexico City until January 1, attending the Inter-American Affairs Conference and the National Institute of Cardiology.

Dr. Edgar Poth, professor of surgery, delivered a series of lectures at Stanford University Medical School in San Francisco, December 10-30.

The University of Texas hospital unit, comprising Base Hospital 127, is now on active duty in England.

Dr. Walter Symmington Maclay, head of the Mill Hill Emergency Hospital, London, and internationally known psychiatrist, presented the work of the Mill Hill Relocation Center to the staff and students. Army psychiatrists from camps in Texas also attended. Dr. Maclay lectured on the rehabilitation methods used and showed a motion picture of the Center in operation restoring army psychiatric cases to active duty.

Dr. Herbert M. Evans, professor of anatomy and Director of the Institute of Experimental Biology, University of California, was guest speaker on December 6th before staff and students. Dr. Evans presented the work of the Institute in isolation and purifying the anterior pituitary hormones.

Dr. James C. Magee, Major General, U. S. A. (retired), former Surgeon General and newly appointed Director of Medical Informational Service of the National Research Council, addressed a special meeting of the staff and students on the significance of tropical diseases before and after the war.

Dr. Edward Steinhaus of the Rocky Mountain Spotted Fever Laboratory of the U. S. Public Health Service was the guest of the Department of Preventive Medicine and Public Health recently. Doctor Steinhaus surveyed with members of the Department recent studies on the etiology of Bullis fever and related rickettsial diseases. Doctor Steinhaus addressed the staff and student body on the subject of tularemia.

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University of Buffalo
School of Medicine

Returned from a first-hand investigation of malaria and other tropical diseases in Costa Rica and Guatemala, Dr. Stockton Kimball will teach that field in the University of Buffalo Medical School. Dr. Kimball, associate in medicine and pharmacology in the school, also spent two months in study at the Army Medical School. Dr. L. Edgar Hummel, assistant dean of the Medical School and assistant professor of medicine, is in Guatemala making a similar study, and Dr. Richard C. Porter, assistant in medicine and pharmacology and member of the Meyer Memorial Hospital staff, who previously took the Army Medical School course, also will teach tropical diseases in the school, along with other specialists.

Dr. Oliver P. Jones has been appointed head of the department of anatomy, succeeding Dr. Donald Duncan, who resigned.

Establishment of a research professorship of pediatrics in the University of Buffalo Medical School and of the Statler Pediatrics Research Department in the Buffalo Children's Hospital, is announced with the joint appointment of Dr. Edward M. Bridge, associate professor of pediatrics at Johns Hopkins University for fifteen years, at the staffs of the two institutions. He will conduct research in drugs used in treatment of epilepsy, the water and sugar requirement of sick children, the care of premature infants and other pediatric problems. At the University he will encourage and promote research in the diseases of

children and stimulate interest in research among medical students.

Dr. Grant L. Rasmussen has been appointed associate professor of anatomy. Dr. Harvey P. Hoffman was appointed lecturer in Medical Economics. Mrs. Louise K. Myers was appointed assistant in clinical psychology.

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Washington University
School of Medicine

Promotions: Dr. Edward G. McGavran to professor of public health administration and acting head of the department of public health. Dr. Margaret G. Smith to associate professor of pathology. Dr. Frederick O. Schwartz to associate professor of clinical ophthalmology. Dr. Gerty T. Cori to associate professor of research biologic chemistry and pharmacology. Lieut. Col. Earl H. Perry, M. C., U. S. Army, retired, to associate professor of military science and tactics. Drs. Carl G. Harford and John R. Smith to assistant professor of medicine. Drs. Paul O. Hageman, Samuel B. Grant, Walter Fischel, Alfred Goldman, Arthur Strauss and Llewellyn Sale to assistant professor of clinical medicine. Dr. Adolph H. Conrad to assistant professor of clinical dermatology. Drs. William O. Russell and Paul A. Wheeler to assistant professor of pathology. Drs. Howard Rommell Hildreth and Carl C. Beisbarth to assistant professor of clinical ophthalmology. Hiromu Tsuchiya, Sc. D., to assistant professor of parasitology.

New appointments: Dr. Thomas Dale Stewart, Washington, D. C., as visiting professor of anatomy; Dr. Samuel H. Gray, St. Louis, as associate professor of pathology; Dr. Hans B. Molholm, Akron, Ohio, as assistant professor of psychiatry and Dr. Harry W. Wiese, St. Louis, as instructor in clinical medicine.

Retired: Dr. Harry W. Lyman, professor emeritus of clinical otolaryngology; Dr. Frederick E. Woodruff, associate professor of clinical ophthalmology; Drs. Walter Baumgarten and Louis H. Hempelmann, assistant professors emeritus of clinical medicine; Dr. Adolph G. Schlosstein, assistant professor emeritus of clinical obstetrics and gynecology, and Dr. Thomas B. Pote, lecturer emeritus in pathology. Dr. David McK. Rioch resigned as professor of neurology at the school to become director of research at the Chestnut Lodge Sanitarium, Rockville, Md.

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Wayne University
College of Medicine

Thirteen prominent citizens of Detroit and Wayne County will form a new corporation for the purpose of speeding construction of the first units of the projected $50,000,000 Medical Science Center of Wayne University. The new corporation will be called "The Medical Science Center of Wayne University." Its first Board of Directors, as designated in the Board of Education's resolution, will be Wendell W. Anderson, Dr. Warren E. Bow, George R. Fink, Charles T. Fisher, Jr., Frederick J. Gartner, Elmer P. Grierson, Ormond E. Hunt, E. Edwin Hutchinson, George W. Mason, Henry Meyers, Dr. Edgar H. Norris, Dr. Burt R. Shurly and Fred M. Zeder. The corporation will have full charge of planning, developing and equipping the Medical Science Center, and will raise money for these purposes. When completed, individual units will be turned over to Wayne University, which will then own and operate them. Construction of the first unit, a $2,000,000 county indigent hospital, is expected to begin next year.

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Loyola University
School of Medicine

Dr. Amedeo S. Marrazzi has been appointed professor and head of the department of pharmacology.

R. M. Strong, Ph.D., professor of microscopic anatomy and Chairman of the Department of Anatomy, and Thesle T. Job, Ph.D., professor of gross anatomy, were guests of honor at a banquet October 31, 1943. Both men completed twenty-five years of continuous teaching service at the Medical School. Basil C. H. Harvey, Ph.D., M.B., Dean of Stu-

dents at the Medical School of the University of Chicago, Leslie B. Arey, Sc.D., Ph.D., Professor of Anatomy at Northwestern University Medical School, and Raymond B. Allen, Ph.D., M.D., Dean of the Medical School of the University of Illinois, spoke in appreciation of the long and distinguished service of Drs. Strong and Job. Other speakers included Theodore E. Boyd, Ph.D., the Reverend Edward F. Maher, S.J., Regent, and Reverend Joseph M. Egan, S.J., President of Loyola University. The banquet was sponsored by the Sophomore Class of the Loyola Medical School.

George F. Simmons, Ph.D., and Arthur J. Gatz, Ph.D., are among the new appointments. Promotions: David S. Jones, Ph.D., to assistant professor of anatomy; Dr. John L. Keeley to associate clinical professor of surgery; Dr. Mary C. Patras to associate professor of physiology; Dr. George A. Hellmuth to assistant clinical professor of medicine; Dr. Leo A. Kaplan to assistant clinical professor in neurology and psychiatry.

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University of Wisconsin
Medical School

Dr. W. D. Stovall, Professor of Hygiene and Director of the State Laboratory of Hygiene, has been appointed a member of the State Welfare Board. Dr. Erwin R. Schmidt, Professor of Surgery, has been appointed to the Service Recommendation Board by the Governor of the State of Wisconsin. Dr. Helen Dickie and Dr. Helen P. Davis have been advanced to Assistant Professors of Clinical Medicine. Dr. Noel A. Gillespie has been advanced to Assistant Professor of Anesthesia.

The second graduation exercises under the accelerated program occurred Saturday, November 20. A class of 57 received degrees.

◆ ◆

University of Virginia
Department of Medicine

Dr. Walter A. Derrick, associate professor of pathology, has resigned.

University of Arkansas
School of Medicine

Dr. R. H. Rigdon has been appointed professor and head of the department of pathology to succeed Dr. Wilbur who resigned. Dr. Wm. G. Cooper has been appointed full time assistant professor of surgery.

The faculty and student body were addressed recently by Dr. Olympio da Fonseca, of Rio de Janeiro, under the auspices of the National Research Council. Subjects: "Malaria" and "Dermatocomycosis." Dr. Arthur Welch, Director of Research, Sharp and Dohme Company. Subject: "Recent Advances in Sulphonamide Drugs." Colonel Irving S. Wright, Chief of Medical Service, Army and Navy Hospital, Hot Springs, Arkansas. Subjects: "Peripheral Vascular Diseases" and "Capillary Studies."

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University of Southern California
School of Medicine

Dr. William Dock, professor of pathology at Cornell Medical School since 1940, will assume chairmanship of the department in addition to serving as professor of medicine.

Other new appointments include Dr. Justin R. Dorgeloh of the laboratory and research division of New York State Health Department; Dr. Frank Bailey, who did graduate work in neurology at the University of Chicago; Dr. Walter E. Ward, University of Southern California graduate; Dr. Homer C. Lawson, practicing physician, who also did research work at U. S. C.; Dr. Ernst Gardner, former instructor at Stanford University; and Dr. Richard J. Winzler, graduate of Stanford and Yale universities and research fellow of the National Research Council at Wenner-Grens Institute in Stockholm, Sweden, as well as the National Cancer Institute.

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Harvard Medical School

Dr. Joseph C. Aub has been appointed professor of research medicine.

McGill University
Faculty of Medicine

McGill University announces the creation of a Department of Psychiatry and, in association with the Royal Victoria Hospital, the establishment of an Institute for research and teaching. Through the generosity of Sir Montagu and Lady Allan, a building and an extensive site have been provided. The institute will contain fifty beds for patients suffering from early and acute psychiatric conditions. Facilities for intensive treatment are being set up. The development of research and treatment will be major objectives and with this in view, large and well equipped laboratories are to be provided. The project is being supported both by the Rockefeller Foundation and the Government of the Province of Quebec. Dr. D. Ewen Cameron has been appointed to the Chair of Psychiatry and will also be the Director of the institute.

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Columbia University
College of Physicians and Surgeons

The establishment of a department in tropical medicine at Columbia-Presbyterian Medical Center has been announced. Dr. Harold W. Brown has resigned as dean of the School of Public Health of the University of North Carolina, Chapel Hill, effective January 1, to become the professor of parasitology under the new setup. He is also the first member of the faculty for training and research in tropical diseases, which will function under the immediate direction of the DeLamar Institute of Public Health, a division of the medical school. The project was made possible by a grant of $150,000 from the Josiah Macy Jr. Foundation, which will also defray a concentrated five year program of research and teaching at the medical center.

◆ ◆

University of Oregon
Medical School

The University of Oregon Medical School celebrated two commencements, the 55th and 56th, during 1943. The first group received diplomas in March. The second graduating class of 63 students received diplomas December 22, under the wartime accelerated program which eliminates the three months summer vacation period.

Miss Tiana Kamdron, a graduate of Seattle General Hospital and the University of Washington, has joined the University of Oregon Medical School staff as assistant superintendent of the Tuberculosis Hospital unit.

Col. Charles K. Berle, M.C., U. S. Army, commanding officer of Barnes General Hospital, Vancouver, Wash., delivered the commencement address December 22nd. Sixty-three graduates received their diplomas in the second class to be graduated in 1943. Dr. Knox H. Finley has been appointed clinical professor and head of the division of psychiatry at the medical school to succeed Dr. Henry H. Dixon, who has been commissioned a lieutenant commander in the navy. Dr. John H. Benward has been named assistant medical director of the Doernbecher Children's Hospital Unit to succeed Dr. Paul V. Woolley, Jr., who has been assigned to Bethesda, Md., as a lieutenant in the navy.

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George Washington University
School of Medicine

Dr. Preston A. McLendon, clinical professor of pediatrics, has been appointed executive officer in the department of pediatrics. Dr. Harry H. Donnally, professor and executive officer in the department of pediatrics, has resigned to become professor emeritus. Promotions: Dr. Ronald A. Cox to assistant clinical professor of ophthalmology. Dr. Russell J. Fields to assistant clinical professor of dermatology and syphilology. Dr. Edgar Leonard Goodman to assistant clinical professor of ophthalmology. Dr. John A. Reed to assistant clinical professor of medicine.

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Tufts College Medical School

A recent gift of $125,000 to the building fund has brought the total subscribed to $746,000, which is $104,000 short of the goal set. This is exclusive of other contributions made for specific purposes.

University of Illinois
College of Medicine

New appointments: Dr. Hugh Thompson Carmichael to associate professor of psychiatry; Dr. Dean A. Collins to associate professor of physiology; Dr. Harry S. Gradle to professor of ophthalmology, also director of the Illinois Eye and Ear Infirmary; Dr. Richard L. Jenkins to assistant professor of criminology, social hygiene and medical jurisprudence; Dr. Peter C. Kronfeld to associate professor of ophthalmology, also director of education (eye) in the Illinois Eye and Ear Infirmary; Lawrence J. Linck, M.S., lecturer in public administration in the department of criminology, social hygiene and medical jurisprudence, also director of the division of services for crippled children; Dr. Ladislas J. Meduna to associate professor of psychiatry; Howard J. Shaughnessy, Ph.D., to associate professor of bacteriology and public health; Beatrice D. Wade, O.T.R., associate professor and director of occupational therapy.

Applications for Research Fellowships in Medicine, Dentistry and Pharmacy in the University of Illinois are now being considered for the year beginning September 1, 1944. Candidates for these Fellowships must have completed a training of not less than eight years beyond high school graduation. The Fellowship carries a stipend of $1,200 per calendar year with one month's vacation.

Application blanks and further information may be secured from the Secretary of the Committee on Graduate Work in Medicine, Dentistry and Pharmacy, 1853 West Polk Street, Chicago 12, Illinois.

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Western Reserve University
School of Medicine

At the recent centennial celebration Dean Lollmann was awarded the D.Sc. degree.

On November 18 associates and students of Dr. Carl J. Wiggers gave a dinner to honor him on his completion of twenty-five years as professor and head of the department of physiology.

The board of trustees of the Cleveland Clinic Foundation has given the college a fund of $50,000, the income to be devoted to surgical fellowships for accredited postgraduate students chosen by the medical school faculty. The fund is named for Drs. Frank E. Bunts, George Crile and William E. Lower, who founded the Cleveland Clinic in 1921. The trustees will add to the fund from time to time. The trustees also contemplate a grant for postgraduate fellowships in medicine to be named in honor of Dr. John Phillips, chief of the division of medicine of the clinic, who died in the Cleveland Clinic Disaster of May 1929.

◆ ◆

University of Georgia
School of Medicine

Dr. George Lombard Kelly, since 1935 dean, has been given a leave of absence to accept an appointment as Secretary of the Council on Medical Service and Public Relations of the American Medical Association, effective January 1. Dr. Edgar R. Pund, professor of pathology at the medical school, will serve as acting dean.

Dr. Joseph Krafka, professor of microscopic anatomy, will serve as chairman of the admissions committee. Dr. J. Robert Rinker has accepted the position of full time professor of urology. Dr. Robert Major has been appointed professor of thoracic surgery, full time. A two story, 85 bed wing will be added to the University Hospital in the near future. Dr. Joseph Akerman, professor of obstetrics since 1916, died of coronary occlusion December 7th.

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St. Louis University
School of Medicine

The second Wartime Commencement was held November 19, 1943. Addresses were delivered by the Right Reverend Monsignor Maurice F. Griffin, vice president of the Catholic Hospital Association and senior trustee of the American Hospital Association, and Dr. Thomas Parran, Surgeon General United States Public Health Service.

Woman's Medical College

A Urological Room has been added to the Surgical Suite of the Hospital of the Woman's Medical College through the generosity of Mr. William Goldman of Philadelphia. It is outfitted with modern surgical and x-ray equipment for both diagnostic and therapeutic procedures and for teaching, and is under the supervision of the Department of Urology.

Under the auspices of the Department of Medicine a series of post-graduate lectures is being held weekly at the college. The 36 lectures in the series are being given by members of the following departments: physiology, physiological chemistry, pathology, bacteriology and immunology, pharmacology and anatomy. Good attendance at all sessions held thus far is evidence of their value.

First year students at the College are attending a special course of lectures in medical statistics given by Mr. G. St. J. Perrott, Chief, Division of Public Health Methods, and Antonio Ciocci, Sc.D., of the United States Public Health Service. The course is sponsored by the Department of Preventive Medicine.

Several members of the College and Hospital Staff as well as the Second Year Students are enjoying the weekly lectures on Interpretations of Medical History being given by Dr. R. H. Shryock of the University of Pennsylvania, who has been made Special Lecturer in Medical History.

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University of Minnesota Medical School

Harlan G. Wood, Ph.D., since 1936 research assistant in bacteriology at the Iowa State College of Agriculture and Mechanic Arts, Ames, has been appointed associate professor of physiologic chemistry at the University of Minnesota. He will be responsible for studies on the biochemical aspects of the virus-host relationship in poliomyelitis in the research program now being conducted at the University of Minnesota under the auspices of the National Foundation for Infantile Paralysis.

Southwestern College of Medicine of Southwestern Medical Foundation

By authority given by the Association, the Executive Council voted to accept the application of the Medical School of the Southwestern Medical Foundation for membership in the Association. This action was taken on the recommendation of inspectors who visited the school and made a careful survey of its present status. Although occupying prefabricated buildings, the floor plan is sufficiently large and it is well laid out for laboratories and offices and research facilities for the staff. The library has been moved into a nearby building. Another large building, formerly a garage, houses the auditorium and the visual art department,—one of the best. The plans for the eventual housing of the school and all of its departments, including many health and welfare activities, are made and everything is in readiness to proceed with building as soon as the war is over and conditions permit. It is planned to make this institution the medical center for the entire Southwest in which there is not now any such activity. Adequate financial support is assured.

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College of Medical Evangelists

Dr. Alonzo J. Neufeld, assistant clinical professor of orthopedics, has made a legal transfer of all his rights in the appliance of the Neufeld pin to the recently created Alumni Research Foundation of the college. Dr. Neufeld's one stipulation is that all monies received shall be applied to research work in the field of orthopedic surgery. Dr. Neufeld devised the Neufeld pin some years ago in the course of his clinical work. He has always kept the proceeds from the pin in a separate fund dedicated to research.

◆ ◆

University of Michigan Medical School

Dr. Lowell T. Coggeshall, professor of epidemiology, has been appointed professor and chairman of the newly organized department of tropical diseases in the School of Public Health.

Yale University School of Medicine

Forty-nine students received the M.D. degree at the recent commencement. Prizes, medals and scholarships were also awarded: Campbell gold medal for highest rank in examinations; the Kesse prize for the best thesis; the Parker prize for best qualifications for a successful practitioner; Ramsey memorial scholarship for unquestioned ability and character; the Ferris prize in anatomy and the Mendel prize in biochemistry.

The historical library will publish a life of Andreas Vesalius.

◆ ◆

Emory University School of Medicine

Dr. William Platt of the Department of Pathology and Bacteriology spent the month of November in Central America studying tropical medicine under a fellowship from the John and Mary R. Markle Foundation.

The Wm. S. Merrell Company has recently established a Fellowship in this Department. The sum of $2,300 has been assigned for a year's work on a new synthetic estrogen. The Fellowship is renewable on a yearly basis.

◆ ◆

University of Cincinnati College of Medicine

Dr. Max M. Zinninger, associate professor of surgery, has been appointed acting director of the department of surgery. A total of $296,773.33 has been given by friends of the late Dr. Mont R. Reid, professor of surgery at the time of his death, May 11, for the Mont Rogers Reid Memorial Fund.

◆ ◆

University of Louisville

The board of Trustees has announced the appointment of Mr. Einar William Jacobsen as president to succeed the late President Kent.

Louisiana State University School of Medicine

Seventy-seven seniors received the M.D. degree December 20. Dr. Reginald Fitz, assistant to the dean, Harvard Medical School, delivered the commencement address.

Dr. John R. Schenken, professor of pathology, delivered the Stanford E. Chaille memorial oration. His subject was "The Carcinogenic and Carcinostatic Effects of Estrogenic Substances; a Study of the Changes in the Mammary and Prostatic Glands."

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University of Kansas School of Medicine

The thirteenth course of the Porter Lectureship in Medicine was delivered by Dr. Herbert M. Evans, director of the Institute of Experimental Biology, University of California, on December 8 and 9, 1943. His subjects for the three lectures were: "The Present Position of Our Knowledge of the Anterior Hypophyseal Hormones;" "The Internal Secretions of the Pituitary Body" and "The Adenotropic Hormone of the Anterior Hypophysis."

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Medical College of Virginia

A. W. Hurd, former dean of Hamline University, St. Paul, has become a director of the bureau of educational research under a grant from the general education board. Dr. Randolph H. Hoge, assistant professor of gynecology, has been appointed professor of gynecology at the medical school.

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University of Nebraska College of Medicine

Dr. George E. Robertson has been promoted to associate professor of pediatrics and Dr. Elmer W. Bantin to assistant professor of pediatrics.

General News

The Proposed Texas Medical Center at Houston

The following memorandum has been prepared by Chauncey D. Leake, Vice President and Dean, the University of Texas Medical Branch, Galveston; Frederick C. Elliott, Dean, the University of Texas School of Dentistry, Houston; William H. Moursund, Dean, Baylor University College of Medicine, Houston, and E. W. Bertner, Acting Director, M. D. Anderson Hospital for Cancer Research, Houston. It is addressed to President Homer P. Rainey of the University of Texas, President Pat Neff of Baylor University, the Board of Regents of the University of Texas, the Board of Trustees of Baylor University, the Anderson Foundation, Houston, and the Houston Academy of Medicine.

The purpose of the memorandum is to propose a specific organization of the Texas Medical Center, with a logical division of interests and administrative effort along the lines of the present development.

The important point of the memorandum is that it proposes the establishment of a committee of representatives from each of the interests involved, for the purpose of coordinating plans and proposals for the Texas Medical Center. Such a committee would logically serve as a clearing house for the development of the Center, and would assure efficiency and economy of building and operation.

The memorandum follows:

1. Commitments now in operation, and logical developments therefrom, indicate the wisdom of agreeing on a general plan of development for the Texas Medical Center. This Center is to be built on lands made available through the Anderson Foundation in the vicinity of Hermann Hospital.

The specific administrative units would appropriately include:

a. The Hermann Hospital and associated hospitals, under the auspices of their respective trustees.

b. A medical school for the training of general practitioners, under the auspices of Baylor University.

c. A college of nursing for the training of registered nurses under the auspices of Baylor University.

d. A school of dentistry for the training of general practitioners under the auspices of the University of Texas.

e. The M. D. Anderson Hospital, devoted to cancer research in its broadest aspects, but with particular reference to the clinical handling of cancer patients, under the auspices of the University of Texas.

f. A school of public health (including geographical medicine) for the training of public health officials, for postgraduate and extramural instruction to doctors throughout the State of Texas in the prevention of disease, in the promotion of industrial hygiene, and in control of sanitation, under the auspices of the University of Texas.

g. A central library, auditorium, and social center, under the auspices of the Houston Academy of Medicine.

2. While research would be presumed to be a function of each of the teaching units in accord with the competence of its individual staff members, it would be wise to consider the establishment of a research committee for the Center in order to coordinate research economically and efficiently throughout the Center. Similarly teaching efforts should be correlated wherever possible between the different units.

3. If this general division of interests and administrative effort may be agreed upon, it would be wise to begin the specific outlining of plans and specifications for buildings, budgets, interrelations of teaching, research, and public service, and preparing for organization of staffs.

4. It is respectfully proposed to all interests involved that a Houston Medical Center Committee be established, with representation from Baylor University, the University of Texas, the Anderson Foundation, and the Houston Academy of Medicine. The function of this Committee would be to devise plans for buildings, operation, and administration, which would involve the coordinated effort of the groups concerned, to the end that the most efficient and satisfactory kind of medical center might result.

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Work of Navy Medical Corps Personnel on Tarawa

(The following press release was issued by Fleet Headquarters for release on November 27, 1943. It was written by Sergeant Pete Zurlinden, of 131 Forrer Boulevard, Dayton, Ohio, a Marine Corps Combat Correspondent.)

Tarawa, November 23—(Delayed)—More than 100 men were treated in a "pillbox" hospital during the first 36 hours after Marines struck this Japanese Gilbert Islands bastion and of the entire group only four men died. Despite the fact that Japanese snipers were hidden in the pillbox at the time, Lieutenant Herman R. Brukardt, 29, U.S.N.R. (Medical Corps) of 630 Parmenter Avenue, Menominee, Michigan, and three indefatigable Navy Medical Corpsmen worked the entire stretch without sleep administering to fallen Marines. Pharmacist's Mate First Class Robert E. Costello, 25, of 18 Montvale Avenue, Woburn, Massachusetts, said that shortly after Marine snipers had cleared the pillbox of the machine gun group, Lieutenant Brukardt and his men moved in and began their grim task immediately.

"We used up four flashlights during the first night," reported Pharmacist's Mate Second Class James R. Whitehead, 22, U.S.N.R., of 111 Beatty Street, Jackson, Mississippi, "and about an hour after we'd been working like fury with the first wounded, Japs sneaked in. We were so busy we didn't notice it until one of the walking wounded fired a shot into the corner. It's a wonder we didn't ruin the lad we were working on, so startled were we at the rifle report."

The little pillbox hospital was situated directly on the front lines the first two days of the brief but bitter Tarawa fighting. But despite the fact that constant Jap machine gun bullets thudded in the little doorway, the Naval crew refused to relax its efforts to save Leatherneck lives.

"We had so many casualties standing around that we had to keep them outside, where they deployed to keep out of enemy fire," said Lieutenant Brukardt. "When we would be ready for one, we'd holler out 'Next,' and they'd come scooting across the clearing and barge in the door on the double."

Estes said that many Marines, with slight wounds, remained around the pillbox for hours helping carry the more serious cases in to the doctors. "I've never seen a man with more sheer nerve and a real ability to bring a human life from the brink of oblivion back to safety," marveled Estes. "The man performed feats of surgery that were miraculous, and the record of that scantily lighted pillbox stands to confirm my opinion.

Lieutenant Brukardt, a black-bearded bespectacled wisp of a man, looked all in when I found him today, still at work, this time at a shore aid station where sniper victims were being brought in. "My only regret," he said, "is that we didn't have enough medical supplies in that place to save those four who died." He then reported that the wounded Marines he attended were "the bravest youngsters I've ever seen. They were torn and shattered by all type projectiles, but most of them were calm and quiet when we got to them. When our anaesthesia gave out, I had to perform some painful operations, but very few of them let out a whimper."

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American Board of Ophthalmology

This board announces that all applications received after January 1, 1944, will be subject to the increased total fee of $75. The first deadline for filing in 1944 is April 1st.

Book News

The Education of Nurses: Historical Foundations and Modern Trends

By Isabel M. Stewart, R.N., Professor of Nursing Education and Director of the Division of Nursing Education, Teachers, Columbia University. New York. The Macmillan Company. 1943. Price, $3.50.

A good book for workers in hospitals and nursing schools and in public health nursing services.

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Textbook of Physiology

By William D. Zoethout, Ph.D., Professor of Physiology, Chicago College of Dental Surgery, and W. W. Tuttle, Ph.D., Professor of Physiology, College of Medicine, State University of Iowa. Ed. 8. St. Louis, The C. V. Mosby Company. 1943. Price, $4.75.

Any book which survives for 37 years and goes through eight editions must have merit. It is intended primarily to fill the needs of short course in physiology for dental, pharmacy and normal school students and these needs it has met well.

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Orthopedic Nursing

By Robert V. Funsten, M.D., Professor of Orthopedic Surgery, University of Virginia Department of Medicine, and Carmelita Calderwood, R.N. Consultant in Orthopedic Nursing, National League of Nursing Education. St. Louis. The C. V. Mosby Company. 1943. Price, $3.75.

Intended to assist nurses in caring for orthopedic patients.

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The Nature and Treatment of Mental Disorders

By Dom T. V. Moore, O.S.B., Ph.D., M.D., Professor of Psychology and Psychiatry, Catholic University of America. Foreword by Edward A. Strecker, M.D., Professor of Psychiatry, Schools of Medicine, University of Pennsylvania. Grune & Stratton, New York. 1943. Price, $4.

The author stresses the importance of psychology and psychopathology, outlines and supplements classic theories of psychopathology; evaluates modern studies of the emotions to find a pharmacological method of treating them. All this is the outgrowth of a long personal experience in attempting to help those who are in mental difficulty. A good book, well written.

Pathological Histology

By Robertson F. Ogilvie, M.D., Lecturer in Pathology and Assistant in Forensic Medicine, University of Edinburgh. With foreword by A. Murry Drennan, M.D., Professor of Pathology, University of Edinburgh. Ed. 2. The Williams & Wilkins Company, Baltimore. 1943. Price, $9.

Completely revised. Especially commendable are the more than two hundred beautiful colored illustrations which cannot but prove helpful to the student—and, incidentally, account for the high price of the book. But, it is worth the price.

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Symptoms and Signs in Clinical Medicine: An Introduction to Medical Diagnosis

By E. Noble Chamberlain, M.D., Lecturer in Medicine, University of Liverpool. Ed. 3. The Williams & Wilkins Company, Baltimore. 1943. Price, $8.

Books of this type are often helpful at times. They serve as reminders and directors to a more detailed explanation of why this symptom.

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Experimental Biochemistry

George D. Wessinger, Ph.D., Associate Professor of Chemistry, Chicago College of Dental Surgery. St. Louis. The C. V. Mosby Company. 1943. Price, $1.50.

A laboratory manual for the short course in biochemistry.

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Experimental Surgery

By J. M. McCaughan, M.D., Ph.D., Assistant Professor of Surgery, St. Louis University School of Medicine. The C. V. Mosby Company, St. Louis. 1943. Price, $2.

An illustrated laboratory guide for undergraduate medical students, with blank pages for note making and some bibliographic references, based on a teaching experience.

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The Dysenteric Disorders

By Sir Philip Manson-Bahr, Senior Physician to the Hospital for Tropical Diseases, Royal Albert Dock and Tilbury Hospitals. Ed. 2. The Williams & Wilkins Company, Baltimore. 1943. Price, $10.

Discussing the diagnosis and treatment of dysentery, sprue, colitis and other diarrhoes in general practice by a master of the subject.

A Textbook of Medicine

Edited by Russell L. Cecil, M.D., Professor of Clinical Medicine, Cornell University Medical College; more than 150 contributors. Associate editor for diseases of the nervous system: Foster Kennedy, M.D., Professor of Clinical Neurology, Cornell University Medical College. Ed. 6. W. B. Saunders Company, Philadelphia. 1943. Price, $9.50.

The text is arranged in double columns, which, with a book of this size, does make reading less arduous. Much has been rewritten; new articles on subjects not covered in previous editions have been added, with new treatises on subjects previously covered; short introductory chapters have been added to most of the larger sections and a list of normal values for the commoner laboratory tests which will be appreciated by students and practitioners. The size of the book is rather frightening. It certainly cannot be carried to and from the classroom or clinic. It is strictly for home reading. Perhaps the work should have been published in two volumes to make handling more simple and easier. But it is a splendid book on the subject, a classic and an authority.

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Manometric Methods:
As Applied to the Measurement of Cell Respiration and Other Processes

By Malcolm Dixon, Ph.D., Sc.D., Lecturer in Biochemistry, University of Cambridge. Foreword by Sir F. G. Hopkins, O.M., F.R.S. Ed. 2. New York. The Macmillan Company. 1943. Price, $1.75.

Presents the complete theory and full practical details of the methods now used widely in biological, biochemical, physiological and bacteriological laboratories.

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Medical Parasitology and Zoology

By Ralph Welty Nauss, M.D., Dr. P. H. Assistant Professor of Public Health and Preventive Medicine, Cornell University Medical College. With Foreword by John C. Torrey, Ph.D., Professor (Emeritus) of Epidemiology, Cornell University Medical College. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York. 1944. Price, $6.

This book describes the course given in this field to second year medical students at Cornell. It consists of 10 three hour sessions. Lectures, demonstration exhibits and laboratory exercises are systematically coordinated to give the student practical experience in the diagnosis of the more common and important parasitic diseases of man and to teach him some of the procedures essential to their control and to the prevention and treatment of pathological conditions caused by their presence. The course is given by the Department of Public Health and Preventive Medicine. Because of the limited time available for the course, collateral reading is stressed as being important. An appendix describes laboratory procedures; a glossary classifies animal parasites and arthropods and defines terms used in the book. An excellent, well chosen bibliography completes the book. This work would appear to have value for the student since it is complete, though concise and it is well illustrated.

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A Synopsis of Surgical Anatomy

By Alexander Lee McGregor, M.Ch., F.R.C.S. (Eng.), Lecturer on Surgical Anatomy, University of Witwatersrand. Foreword by Sir Harold J. Stiles. Ed. 5. The Williams & Wilkins Company, Baltimore. 1943. Price, $6.50.

The chapters on the anatomy and surgery of the sympathetic have been rewritten. New sections deal with the supraspinatus tendon, the subdeltoid bursa and the intravertebral disc. A very practical book; profusely illustrated by nearly 700 drawings.

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Rose & Carless Manual of Surgery

Edited by William T. Coughlin, M.D., Late Professor of Surgery, St. Louis University School of Medicine, from the 16th English edition by Cecil P. G. Wakeley, F.R.C.S., etc., Senior Surgeon King's College Hospital, and John B. Hunter, M. Chir. Cantab. 16th American ed. The Williams & Wilkins Company, Baltimore. 1943. Price, $9.

What a record for a textbook! The first edition appeared in 1898; the sixteenth in 1943, forty-five years of usefulness to thousands of medical students and still popular despite its length—1,718 pages and 1,000 illustrations. It is all there. Experience and authority fairly exude from its pages.

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The Foot

By Norman C. Lake, M.D., F.R.C.S. (Eng.), Senior Surgeon and Lecturer on Surgery, Charing Cross Hospital, etc. Ed. 3. The Williams & Wilkins Company, Baltimore. 1943.

This is not a book for the chiropodist but for the surgeon. It deals with diseases of the foot, gunshot wounds, immersion foot, foot fatigue in industry and the services and many other conditions with which the practitioner of medicine should be familiar. If he were, there would not be need for the chiropodist. The foot is as much the physician's concern as is the hand, or the arm or the leg. Why has he neglected it? This book will be a great help to him to right the matter.

Pathology and Therapy of Rheumatic Fever

By Leopold Lichtwitz, M.D., Clinical Professor of Medicine, Columbia University. Foreword by William J. Maloney, M.D., F.R.S. (Edin.), Consulting Neurologist to the City Hospital. Edited by Major William Chester, M.C. Grune & Stratton, Inc., New York. 1944. Price, $4.75.

A concise but nonetheless complete discussion of rheumatic fever. Perhaps too much space is given to bibliography. References are appended to each chapter.

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Elements of Medical Mycology

By Jacob H. Swartz, M.D., Assistant Professor of Dermatology, Harvard Medical School, and Fred D. Weidman, M.D., Professor of Dermatological Research, University of Pennsylvania. Grune & Stratton, New York. 1943. Price, $4.50.

A study of the elements of pathological and clinical investigation of diseases caused by fungous agents. Special discussion is made of the common ringworm infections. Few books on this subject have been written. The authors' experience easily makes them an authority. It is well illustrated; gives prescriptions and other treatment, and a number of very informative charts on fungi. A good book.

Psychosomatic Diagnosis

By Flanders Dunbar, M.D., Department of Medicine and Psychiatry, Columbia University; with foreword by Leonard G. Rountree, M.D. Paul B. Hoeber, Inc., New York. 1943. Price, $7.50.

This subject is often regarded as being a rather mysterious one; in reality it is old as medicine itself but somewhat new in being well understood. Osler spoke of it long ago. It emphasizes the value of a medical history and shows how it can be elicited—from the psyche and the soma; how to evaluate statements made by the patient. Every practitioner should know more about the subject and, if he does, he will practice better medicine. His diagnoses will be improved; hence, also his treatment. Many illustrative cases are cited. After reading this book, psychosomatic medicine is no longer bizarre and confusing. It is made clear and is shown to have a most important place in the practice of good medicine.

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A Practice of Orthopedic Surgery

By T. P. McMurray, M.B., F.R.C.S. (Edin.), Professor of Orthopedic Surgery, Liverpool University. Ed. 2. The Williams & Wilkins Company, Baltimore. 1943. Price, $7.

A very good book for the medical student.

CLINICAL PARASITOLOGY

By CHARLES FRANKLIN CRAIG
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This work is a manual of laboratory methods to be employed in the diagnosis of diseases caused by protozoan organisms. It includes all methods that have a real claim to value in the diagnosis of protozoan diseases. To them is added the author's evaluation of their usefulness as judged from his own experience and that of others. The book is indispensable to physicians, to public health officers and to laboratory technicians everywhere.

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